

Chapter 12

Forest Governance and Sustainable Rural Development

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Abstract How might forest institutions be designed to encourage long-term and collective natural resource management, while also addressing the needs of local people? This chapter sheds light on this question by reviewing insights of ‘good forest governance’ scholarship, with a focus on ongoing developments in Southeast Asia. It is argued that building enduring, effective forest management responsive to the needs of local communities requires greater focus on the role of two key governance concepts: institutional intersection and policy learning. From this review, the chapter extrapolates key findings for practitioners seeking to promote ‘good forest governance’.

Keywords Forest governance • Forest policy • Networks • International regimes • Non-state governance • Decentralisation • Institutional intersection • Policy learning • Local communities

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12.1 Introduction

One of the most important challenges facing those promoting sustainable development within, and for, rural and local communities is to better understand how to nurture enduring, problem-focused and authoritative institutions. What are the ways in which international, non-state and other governance mechanisms reinforce, rather than detract from, efforts to address local needs and local participation in natural resource management processes? How might institutions be developed that encourage long-term collective efforts instead of short-term calculations that often divide these same communities?

This chapter sheds light on the above questions by focusing on two important concepts: (1) the role of institutional intersection across global, regional, national and local as well as public and private scales, and (2) the role of policy learning networks in shaping these trends.

The 2.4 billion hectares of tropical and subtropical forests in the world, which together cover nearly one-fifth of the earth's land area (FAO 2010), play a crucial role in the economic development of tropical rural economies. They supply a wide variety of forest products for consumption and trade, support food security and energy needs, and play a vital role in ecosystem functions. These ecosystem roles include the sequestration and storage of carbon, soil protection, maintenance of the water cycle and biodiversity. One billion extremely poor¹ people in developing countries directly depend upon forests for their livelihoods, while 350 million people living in and around forests heavily depend on them (World Bank 2006a). Forest management and rural development goals are, thus, highly interrelated in many tropical and subtropical countries around the world.

Yet, ongoing deforestation and forest degradation continue to diminish the availability and quality of forest resources. Major causes of deforestation include the conversion of tropical forests to agricultural land, and increases in demand for forest commodities. Efforts to control or limit these impacts have been impeded by land tenure insecurity and undervalued ecosystem services (Gibbs et al. 2010; Pfaff et al. 2010). Illegal logging and unsustainable timber harvesting practices predominantly cause forest degradation. Efforts to ameliorate both deforestation and forest degradation as put forward in the international REDD+ mechanism (i.e. reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries, UNFCCC 2008) under the climate change convention are hampered by inappropriate forest institutions (Cashore et al. 2010).

Another key concern is related to the role of local people in forest management (Peluso 1992; Dove 2006, 2011). Communities throughout tropical forest regions rely heavily on forest resources for their livelihoods and for the maintenance of cultural and environmental integrity. The history shows that decision-making in

¹ The World Bank valued the extreme poverty line at US\$ 1.25 a day in 2005 prices (World Bank 2010).

forestry has disadvantaged and marginalized the estimated 1.6 billion people living in local communities within forest areas (Sikor et al. 2010) – a governance problem causing major social and economic inequalities.

Adding to the complexity of the situation, the nature of problems is changing. Expanding global consumption patterns, the growth of transnational firms, new financial architectures and the development of low-carbon economies increasingly pose new challenges for rural governance. In addition, the impacts of global climate change and resultant mitigation and adaptation efforts are felt strongly in rural regions (Galloway et al. 2010).

Both practitioners and scholars recognize that efforts to address these thorny yet important challenges must focus on the role that institutions play, or should play, to secure sustainable livelihoods in rural environments (Ostrom 1990; World Bank 2009a; IFAD 2010). Such a focus must also examine the types of learning processes that promote ‘good governance’.

12.2 Definition of Terms

This section defines key terms critical for a common understanding of the analytical framework developed in the chapter.

In accordance with Mayntz’s (2004) definition, **governance** as opposed to government, is understood as “the entirety of all co-existing modes of collectively regulating social matters”. By emphasizing the co-existence of different modes of governance, the literature incorporates the role of the state while also conceptually expanding from sovereign national authority executed by governments to self-regulated competitive systems (markets) and voluntary coordination in networks (Risse 2007).

Next is to adopt the definition of **institutions** as “a cluster of rights, rules, and decision-making procedures that gives rise to a social practice, assigns roles to participants in the practice, and guides interactions among occupants of these roles” (Young et al. 2008). Although characterized by different sets of rules and procedures, international regimes, national and local governments, public-private partnerships as well as policy networks are all considered as institutions. For the purpose of this chapter, it is necessary to describe some of the different types of institutions in more detail.

Referring to Levy et al. (1995), **international regimes** are understood as “social institutions consisting of agreed upon principles, norms, rules, procedures and programs that govern the interaction of actors in specific issue areas.” Usually, regimes center on an international agreement (e.g. United Nations Framework Convention on Climate Change, Convention on Biological Diversity) and respective compliance mechanisms (considered as ‘hard law’). However, a regime can also be framed around a non-binding agreement (e.g. codes of conduct, standards) when it establishes norms that shape state behavior (Chasek et al. 2010). In accordance with this logic, Dimitrov et al. (2007) have enriched regime theory through the concept of

non-regimes defined as “transnational policy arenas characterized by the absence of multilateral agreements for policy coordination among states.” The notion of non-regimes stresses voluntary cooperation and ‘soft law’ approaches, related to changing global power structures as described by Nye (2004).

Regimes differ from international organizations, including regional intergovernmental organizations such as Association of Southeast Asian Nations (ASEAN), in two ways. The first distinction is a regime’s focus on a specific issue area such as climate change or biodiversity, whereas international organizations cover a broader scope (Rittberger et al. 2012). Second, regimes do not function as collective actors, unlike international organizations such as the United Nations or European Union (*ibid*).

The soft law approach also incorporates **policy networks** which Börzel (1998) characterizes as “predominantly informal interactions between public and private actors with distinctive, but interdependent interests, who strive to solve problems of collective action on a central, non-hierarchical level”. Compared to the more formalized international regimes and compliance-based outcomes, networks emphasize benefits resulting from informal, non-hierarchical coordination.

Recognition of these fluid processes focuses and justifies our attention to **policy-oriented learning**, which Sabatier and Jenkins-Smith (1999) define as “relatively enduring alterations of thought or behavioral intentions that result from experience and/or new information and that are concerned with the attainment or revision of policy objectives”.

12.3 Analytical Framework: Connecting Five Conceptual Pathways

12.3.1 Overview

Scholarly interest in promoting ‘good forest governance’ is aided by an understanding of five often disconnected sets of literature: (1) governance and institutions, (2) legitimacy/political authority (3) policy networks, (4) institutional intersection, and (5) policy-oriented learning. This section discusses how these conceptual pathways are interconnected and develops the analytical foundation for understanding the subsequent review of forest institutions and learning processes.

12.3.2 From Government to (Good Forest) Governance

In the 1990s, political scientists shifted their focus from governmental efforts to the broader concept of governance. Cashore et al. (2010) present the emergence of governance as a consequence of globalization and increasingly complex problems

such as climate change and land-use conflicts.² Dissatisfaction with traditional command-and-control approaches of governments (Kooiman 1993; Rhodes 1997) paved the way for new patterns of interaction (governance) that link public and private authority through various forms of policy networks, transnational coalitions and public-private partnerships. Much of this scholarship asserts that compared to state-centered, ‘top-down’ styles of governing, these new patterns emphasize more ‘bottom-up’ approaches that include the involvement of non-state actors and non-hierarchical, voluntary processes of coordination (Börzel 2005; Zürn 2008). The interaction of these various modes of governance has been found to be crucial for effective governance (Cashore 2002; Mayntz 2008) and problem solving (Blumenthal 2005).

The emergence of the governance concept is attended by widespread efforts to promote ‘good governance’, brought forward mainly by institutions such as the Organization for Economic Cooperation and Development (OECD) and the World Bank.³ Focusing on forests, Contreras-Hermosilla et al. (2008) describe ‘good forest governance’ as “governance that best meets, in a transparent, equitable and sustainable way, the forest related needs and goals of the population of the country and its constituent parts. Forest governance is about who holds power, who is responsible and how decision makers are held accountable to citizens and to each other.” While distinctive interpretations of ‘good (forest) governance’ exist, Cashore (2009a) reveals that there is a consensus on the broad principles of inclusiveness, transparency and accountability.

Key to understanding how institutions may be designed to promote good (forest) governance are the dual concepts of legitimacy and political authority. These concepts can be understood through the lens of March and Olsen’s (1995) distinction between a ‘logic of appropriateness’ and a ‘logic of consequences’. While the latter (consequences) leads stakeholders to maximize the benefits of policy decisions based on individual or organizational strategic self-interest, the former (appropriateness) occurs when cultural norms and values explain support for policy choices (Bernstein and Cashore 2007). This means that any effort to build enduring institutions and good forest governance must pay attention to the process through which stakeholders and communities support specific policy initiatives, as well as the mechanisms through which stakeholders come to accept the political authority of an institution. Political authority is aided by the concept of legitimacy, in which “general support for a regime or governance institution” is denoted by “subjects willing to substitute the regime’s decisions for their own evaluation of a situation” (Bodansky 1999).

² See also Rosenau (2006) and Benz et al. (2007).

³ The ‘Worldwide Governance Indicators’ (WGI) project, supported by the World Bank, measures the following six dimensions of governance: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption (Kaufmann et al. 2010).

Institutions that gain political authority and legitimacy through March and Olsen's logic of appropriateness are suggested to be more enduring than institutions that gain political authority and legitimacy through a logic of consequences (March and Olsen 1995; Bernstein and Cashore 2007). Appropriateness will play an important role in the review of forest institutions in Sect. 12.4 of this chapter.

12.3.3 Policy Networks as a Feature of Governance

In the context of the emergence of governance, policy networks have become increasingly common. In contrast to top-down governmental approaches, a typical network “combines the voluntary energy and legitimacy of the civil society sector with the financial muscle and interest of businesses and the enforcement and rule-making power, and coordination and capacity-building skills of states and international organizations” (Reinicke et al. 2000).

Although the effectiveness of networks in general is contested (Howlett 2002; Provan and Kenis 2007), there is evidence of what appropriately designed networks can achieve. They contribute to developing responses to external factors, address the implementation gap of policies, promote the principle of subsidiarity, organize consultation and learning processes, and support the development of guidelines and standards (Streck 2005; Adam and Kriesi 2007).

One variety of networks are ‘knowledge networks’ designed specifically to create a culture of policy learning by generating shared knowledge, assessing policy options and transferring lessons learned (Stone 2000). Compared to other network varieties, knowledge networks focus on linking science with policy by promoting intellectual exchange, supplying expertise, coordinating research and communicating knowledge (Stone 2005). They also seek to enhance accountability by encouraging dialogue between state and non-state actors (Maxwell and Stone 2005).

The term ‘network governance’ (Rhodes 1997) emphasizes the soft character of interaction, as occurring mainly in networks, and hints at expected behavioral change through mutual learning (Börzel 2005; Risse and Lehmkühl 2006). Although some scholars suggest that soft mechanisms work only (Scharpf 1993; Héritier 2003) or better (Hogl et al. 2008) in the ‘shadow of hierarchy’, others argue that sanctions are not required if the governance system is based on incentives for learning and provides for flexibility (Radaelli 2003). How the latter can look in reality will be illustrated through the analysis of knowledge networks in Sect. 12.4 of this chapter.

12.3.4 Institutional Intersection

The concepts described in the preceding sections may be applied to institutions at scales that range from global to local and promote greater understanding of

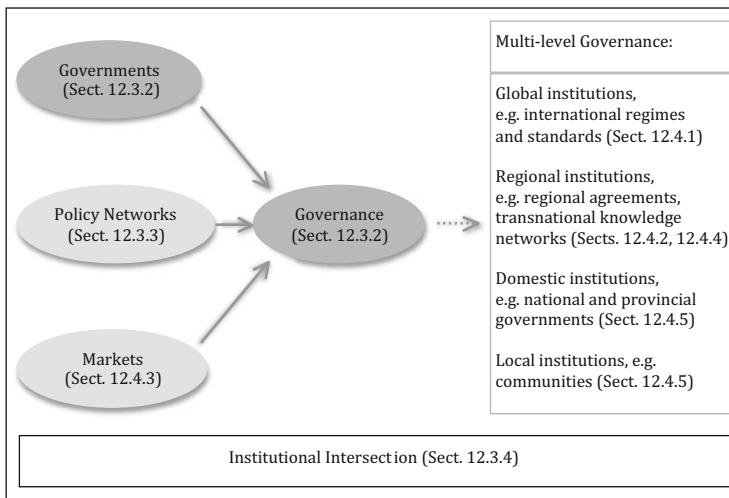


Fig. 12.1 Connecting conceptual pathways – governance and institutions, policy networks, and institutional intersection

‘multi-level governance’ (Benz 2004; Dunoff 2007).⁴ The multi-level perspective offers a framework for governance beyond national boundaries that maintains respect for the principle of subsidiarity and links international deliberations with domestic policy implementation (Zürn 2008). The term shifts the attention away from an exclusive focus on nation-states or an international forest regime to an integrated governance approach. The emergence of multi-level institutional settings has led public policy scholars to place emphasis on ‘polycentric’ approaches to governance (Ostrom 2009) and what broader policy mix or ‘baskets’ of policy instruments (Gunningham and Grabosky 1998) can bring about meaningful intersecting effects (del Río 2010; Oikonomou et al. 2010). Figure 12.1 provides an overview of how the conceptual pathways of governance and institutions, policy networks, and institutional intersection relate to each other.

The complex fabric of intersecting institutions and hybrid governance arrangements (Zürn and Koenig-Archibugi 2006; Schuppert 2008) has become increasingly apparent in forest policy worldwide (Glück et al. 2005; Visseren-Hamakers and Glasbergen 2007; Agrawal et al. 2008), and in Southeast Asia in particular (Yasmi et al. 2010). Examples of such an approach include hybrid forms of forest governance (Glück and Rayner 2009) and the ‘nested approach’ to REDD+ that links global and local stakeholders in national policy-making (Pedroni et al. 2009; Streck 2010). This development in forest policy marks an important paradigm shift, which is built upon in this chapter.

⁴ Multi-level governance focuses on the interplay or intersection of institutions throughout all administrative scales (Young 2002).

12.3.5 Policy Learning Across Coalitions

The learning-oriented approach of network governance is key for analyzing forest institutions in general and Southeast Asia forest institutions in particular. In this region, informal institutional environments have emerged and asserted themselves as more effective because of “a cultural aversion to formal institutional arrangements and a reflection of an Asian style of governance and diplomacy” (Nesadurai and Stone 2000).

Learning processes are an important feature of governance institutions that are dynamic and/or adaptive to a changing environment. In their ‘dynamic governance’ concept, Neo and Chen (2007) emphasize the need for institutions to adapt past policy choices to current realities in order to remain relevant and effective in achieving long-term objectives. In a similar vein, Ostrom (2007) identifies adaptability as indispensable for effective institutional outcomes. McDermott et al. (2011) emphasize the role of policy learning for institutions to contribute to ‘problem amelioration’ in the context of REDD+. McDermott et al. argue that forest stakeholders deem institutions that are able to adapt to new knowledge (through processes of learning) to be more appropriate, following March and Olsen’s logic of appropriateness. Figure 12.2 illustrates how policy learning and the logic of appropriateness are embedded into the chapter’s analytical framework.

Several theories exist to explain different notions of learning, often in relation to policy change (Bennett and Howlett 1992). Among the more prominent is the Advocacy Coalition Framework (Sabatier 1988; Bennett and Howlett 1992). The framework explains how policy-oriented learning results in changing belief systems based on experiences and new information about policy objectives (Sabatier and Jenkins-Smith 1999). Drawing on the Advocacy Coalition Framework, Albright (2011) emphasizes professional meetings as a forum for scientists and technical experts (i.e. advocacy coalitions) to discuss (opposing) belief systems and for policy learning to occur, respectively. Regional learning networks, reviewed in Sect. 12.4, reflect this idea of professional forums.

Learning is expected to generate new information, facilitate the interpretation of past policies anew, incorporate new ideas, and contribute to the adaptation of policies over time as prerequisites for policy change (Harguindéguy 2007). Research shows that networks provide greater learning opportunities than traditional governance mechanisms (Streck 2005). The learning capacity of networks is related to their ability to identify and diffuse policy innovations “driven by information flows rather than hierarchical or collective decision making within international institutions” (Busch et al. 2005). In multi-level governance systems, transnational information flows often become more informal through an emphasis on non-imposed mechanisms of coordination (Fogarty 2007).

This approach leads to the question of how transnational networks create venues to nurture learning and behavioral change in the long term. The interconnectedness of cross-sectoral problems in rural development suggests that there is a need to transfer knowledge and enrich learning across institutions to solve problems inside

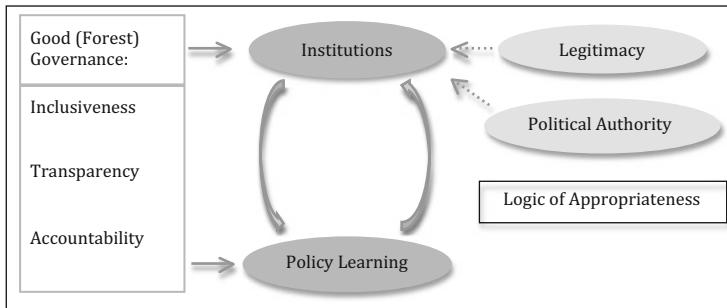


Fig. 12.2 Connecting conceptual pathways – good (forest) governance, policy learning, legitimacy and political authority

and outside the field of forestry. In this context, Theisohn and Land (2009) distinguish vertical communities of practice organized around sectoral, thematic areas such as forestry, agriculture or rural development, and horizontal communities of practice concerned with matters of public management, governance or legitimacy. The authors argue that for communities of practice to improve their practices they must interact more effectively with other communities, and reinforce horizontal and vertical connections where policies intersect. Similarly, Holzinger et al. (2008) find that policy change in the environmental sector often derives from learning processes among overlapping transnational networks. This can be explained with the Advocacy Coalition Framework, where professionalized forums across coalitions provide the potential for minority coalitions to convince other stakeholders of their views (Albright 2011).

12.4 Forest Governance for Rural Development: Review of Intersecting Institutions

12.4.1 Global Intergovernmental Institutions: Efforts to Build a Forest Regime

12.4.1.1 The Forest Non-regime

International forest policy deliberations can be described as a non-regime because systematic efforts to build a regime since the United Nations Conference on Environment and Development (UNCED) in 1992 in Rio de Janeiro have not led to successful formal treaties or compliance mechanisms. Since then, innumerable negotiations and consultations have been held under three consecutive forums – the Intergovernmental Panel on Forests (IPF) from 1995 to 1997, the Intergovernmental Forum on Forests (IFF) from 1998 to 2000, and the United Nations Forum on Forests (UNFF) from 2000

to present. All three have failed to lead to an agreement on a formal forest convention. This failure has resulted in widespread disappointment and a general consensus that existing global forest institutions are ineffective (Humphreys 2006). Scholars provide different explanations for why this has occurred (Rosendal 2001; Davenport 2005; Dimitrov 2005). Among the reasons are discrepancies between developed and tropical developing countries regarding the appropriateness of hard law instruments, particularly in terms of their financial and regulatory burdens (Cashore et al. 2010).

Despite the absence of hard law, the forest regime-making process has impacted rural development policies through ‘soft law’ contributions to institutional intersection. The following analysis builds on regime outcomes as suggested by Haas (2002) and Vogler (2005).

First, the negotiations resulted in a number of principles and norms, such as the Forest Principles and Chap. 11 of Agenda 21 (adopted in 1992 by the UNCED), the IPF/IFF Proposals for Action (adopted in 1997), the ‘non-legally binding instrument on all types of forests’ (adopted in 2007 by UNFF), and criteria and indicators for sustainable forest management as benchmarks for countries to design their own domestic policies (Lejano 2006). Although non-binding, these jointly agreed forestry norms respect national sovereignty while also calling for the participation of indigenous peoples and local forest communities in policy development. They also connect forestry objectives with broader development efforts, such as the Millennium Development Goals (MDG).

Second, the idea of ‘national forest programs’, adopted under the IPF, have stimulated national reforms in some countries, including Indonesia, Vietnam and Cambodia (BMZ 2004; FAO 2006a). National forest programs are designed as a domestic framework for integrated policy processes, which puts forestry in the context of land-use management, poverty alleviation and rural development. This approach shares important features with (new) public management, namely the holistic view of policy-making with interrelated actors (Nelson 1996). The development of national forest programs reflects the move from traditional to network governance based on guiding principles such as adaptive learning and open dialogue with a wide range of actors. National forest programs put national sovereignty at center stage (McDermott et al. 2007), are flexible to accommodate new policy instruments (Rayner and Howlett 2004) and have the potential to improve domestic governance (Püchl and Rametsteiner 2002; Albrecht and Obser 2003). Although national forest programs have not yet been used by governments to their full potential, they represent a type of institution that may become increasingly important for rural development planning, given their ability to build inter-institutional relationships (Galloway et al. 2010).

A third, related outcome is the involvement of civil actors who have contributed to redefining problems from a bottom-up perspective. Themes put forward by non-state actors include a neo-liberal agenda for economic growth and forest trade, attention on domestic efforts for forest law enforcement and governance, and an emphasis on rights and access to resources for local communities (Cashore et al. 2010).

Fourth, the global debates on forestry promoted the generation and dissemination of scientific knowledge. Examples include the Global Forest Expert Panels initiated by the Collaborative Partnership on Forests (CPF) and the Task Force on International Forest Governance led by the International Union of Forest Research Organizations (IUFRO). The CPF, which groups 14 international forest institutions, was established in 2001 to complement the UNFF as a platform for learning and coordination. Similar to the Intergovernmental Panel on Climate Change (IPCC), the forest expert panels provide independent scientific assessments of key forestry issues such as forest adaptation, an emerging theme for rural development policies, and the international forest regime (GFEP 2009). The CPF uses an interdisciplinary perspective and examines forestry in a wider multi-sectoral context – the so-called ‘forests+’ approach (Glück et al. 2010). One justification for these collaborations is that it is expected that the CPF will lead to learning about the appropriateness of the existing institutional architecture not only in forestry, but also more widely in rural and sustainable development. This, in turn, may infuse new ideas that will help in shaping more effective global forest institutions, which benefit forest users at local levels (Bozzi et al. 2012).

Hence, although conventional efforts were unable to win broad coalitions of support, they have contributed pieces to the overall forest governance puzzle through their intersection with regional and domestic institutions. As summarized by Cashore et al. (2010) soft law policy tools exerted a ‘normative pull’ on states and generated new ideas about goals and instrument choices, although these new ideas are focused more on broad principles and objectives and less on practical details and on the ground calibrations. The process also opened new channels for intergovernmental and transnational networks and learning by leading stakeholders to reflect on the appropriateness of forest governance arrangements in the context of broader development objectives. An assessment of the impacts of the international forest regime in Cameroon, Indonesia and Brazil by Singer (2008) found that its informal aspects, such as principles and policy networks, have contributed to shaping forest policy. This is supported by Conca’s (2006) analysis of transnational networks in water governance. He criticizes the formality of the regime approach and calls for institutions with “more pluralistic understandings of authority, more flexible conceptions of territorial sovereignty, and more heterogeneous ways of knowing about problems and solutions”.

12.4.1.2 Interplay of Environmental Regimes

In parallel to deliberations on a forest treaty, trade or environmental agreements have governed specific forestry-related sub-themes, namely timber trade under the International Tropical Timber Agreement (adopted in 1983, renewed in 1994 and 2006), forest biodiversity under the United Nations Convention on Biological Diversity (adopted in 1992) and sustainable land management under the United

Nations Convention to Combat Desertification (adopted in 1994). The problem of deforestation regained momentum when the Fourth Assessment Report of the IPCC underscored the significant role of forests in a climate change mitigation and adaptation portfolio (IPCC 2007). The inclusion of forests under the United Nations Framework Convention on Climate Change (adopted in 1992) is being debated in the form of an international REDD+ mechanism (UNFCCC 2008). Levin et al. (2008) argue that for REDD+ to be effective it has to be implanted into longer-term strategic thinking regarding forest institutions and overcome persisting short-term perspectives, which hinder sustainable forest governance.

Many scholars have criticized the issue-by-issue patchwork of global forest institutions as a major obstacle to effective governance (Auer et al. 2005; Humphreys 2006; Young 2010). However, some scholars suggest that institutional fragmentation bears potential strengths as well (Young et al. 2008). Advantages may occur from the provision of complementary governance choices and testing of innovative policy instruments with subsequent diffusion to other countries (Kern et al. 2000; Biermann 2004). The International Tropical Timber Organization (ITTO), for instance, was instrumental in developing criteria and indicators for sustainable forest management which, in turn, contributed to more authoritative policy choices through governments and encouraged learning (Cashore et al. 2010). REDD+ adds a new scheme to provide financial incentives for the protection and sustainable management of forests for developing countries (Dutschke et al. 2008). Yet, solutions for appropriate governance of REDD+ that allows for the effective participation of local communities remain critical to gain the support of those stakeholders most affected by the impacts of climate change (Phelps et al. 2010; Angelsen et al. 2011).

A review of the pros and cons of institutional interplay among multilateral environmental agreements affecting forestry is beyond the scope of this chapter. The point to be made here is that, although it occurs as a patchwork of disconnected regime efforts that may support sustainable forest management in one place but hinder it in another, the perspective of institutional intersection offers a framework to explore more carefully where connections to other institutions may be beneficial to improving forest governance.

12.4.2 Regional Institutions: In the Midst of Global and Domestic Forest Institutions

The above review suggests that global-scale institutions are important but insufficient to change behavior and create adequate support for sustainable forest management (SFM). In 2005, the UNFF led a debate to regionalize the global forest policy dialogue (Obser et al. 2005) and regional approaches have been gaining importance since then (RLI 2008; OTCA et al. 2009). Growing regionalism and regional initiatives, both formal and informal, have become important trends in

contemporary international relations. This trend is particularly observable in Asia (OECD 2005; ADB 2008), where ASEAN has become a core integration movement (Öjendal 2001; Frost 2008).

Compared to global or domestic efforts, regional initiatives are effective in building coalitions of support for issues of common concern, reducing transaction costs and increasing the likelihood of reaching consensus since fewer countries are involved in negotiations (Martin 2004). In the case of controlling trade in illegal timber products, regional cooperation offers a forum for debate among trading partners, an exchange of tested practices, a platform for common use of data, as well as a framework for enforcement cooperation and an international tracking and/or licensing system to guarantee legality (Brack 2006). Against this background, timber consumers like the European Union (EU) engage regionally to complement their bilateral activities with timber producer countries. Among the limitations of regional approaches are potential conflicts due to interrelations and power dynamics of neighboring countries, as well as weak motivation to coordinate beyond regional boundaries (McDermott et al. 2007).

12.4.2.1 Regional Intergovernmental Organizations

Regional intergovernmental organizations differ greatly in their institutional setups, mandates given by their citizens and business cultures (Lawson 2009). For instance, unlike the forestry-focused Central African Forest Commission (COMIFAC), the Amazon Cooperation Treaty Organization (OTCA) and ASEAN cover all policy fields of common interest to their region. Compared to informal regional processes (next section), regional organizations represent governments politically and provide formal institutional settings.

As the ASEAN case study shows (Box 12.1), intersecting institutional effects are often related to (1) the reinforcement of common interests and power of a common voice of sovereign states in global deliberations; (2) regional soft agreements which adapt global agreements to better meet regional specifications; (3) policy frameworks which support domestic efforts through regional coordination; (4) regional benchmarking and guidelines; (5) monitoring functions; and (6) the participation of, and learning among, various stakeholders through transnational networks that may foster the formation of support coalitions.

Box 12.1 Lessons from ASEAN in the Midst of Global and Domestic Institutions

Southeast Asia represents the second largest tropical forest area in the world. In international deliberations at the global level, ASEAN has underscored the kinds of institutional arrangements the coalition of its ten member states

(continued)

Box 12.1 (continued)

considers appropriate to solve forestry problems. Lessons can be drawn from the establishment of the ‘ASEAN Caucus on Forestry at the UNFF’ as a cost-effective mechanism to facilitate regional coordination, and from the ‘ASEAN Regional Knowledge Network on Forests and Climate Change’, which significantly facilitated the deliberations of a common regional position paper on REDD.⁵ The network’s research agenda also includes the development of minimum standards and methodologies, which signals the member states’ interest in addressing REDD+ at the regional scale.

At the regional level, ASEAN achieved the following soft agreements, which in most cases originate from global institutions but are adapted to regional specifications.

First, triggered by regional criteria and indicator (C&I) processes to define sustainable forest management, ASEAN adopted its own C&I distinguishing the appropriateness of each indicator for regional, national and local levels. In addition, it developed a monitoring, assessment and reporting format, overseen by the ASEAN Secretariat, which provides a joint framework for member states to evaluate performance regarding SFM. In order to gain support from forest managers on the ground, ASEAN facilitated capacity building for decentralized forest management that addresses more practical questions such as data collection. Besides monitoring purposes, the C&I were used as benchmarks for a peer review mechanism through which member states share good forestry practices and learn about the innovative policy approaches of their peers. As an example, a review of forest policy in the Philippines reveals how ASEAN motivated one of its members to use the C&I to foster policy coherence in the context of ‘forest law enforcement and governance’ (FLEG).

Second, ASEAN reached agreement on regional guidelines for a phased approach to forest certification and on criteria and indicators for legality of timber. While such regional standards say little about on the ground results, regional consultations provided a forum for forestry stakeholders to share their experiences about the appropriateness of different tools to verify timber legality. The regional standards also generated learning results that, in turn, may affect the design of domestic verification systems.

Third, a regional tool to assess FLEG at the domestic level was developed, as called for in ASEAN’s work plan on FLEG. The regional action program

(continued)

⁵ REDD (‘reducing emissions from deforestation and forest degradation in developing countries’) was later expanded to REDD+.

Box 12.1 (continued)

was prioritized in conjunction with efforts promoted under the East Asia and Pacific FLEG process.

Fourth, ASEAN created transnational expert networks for better informed policy-making on forest-related issues. In the context of ASEAN's move towards a more people-oriented (or legitimized) community, the networks are expected to increase the acceptance of regionally promoted forest institutions by involving non-state actors and by channeling local people's perspectives to influence the choices of their politicians.

Finally, the 'ASEAN Multi-Sectoral Framework on Climate Change: Agriculture and Forestry towards Food Security (AFCC)' gives an idea of how regional organizations can assume a role in supporting domestic efforts through regional coordination. While an overall regional climate change policy in ASEAN is still in the making, the forest policy sector through the AFCC has become a forerunner in integrating sectoral policies into broader strategic frameworks that support greater policy coherence and cross-sectoral coordination. This way, ASEAN attempts to address regional particularities of climate change related to food security and most vulnerable countries and sub-regions in Southeast Asia.

The AFCC bridges the three pillars of the Roadmap for an ASEAN Community 2009–2015.⁶ For instance, trade-related issues for forestry products, including forest certification, fall under the ASEAN Economic Community. Sustainable management of forests, other natural resources and biodiversity, as well as climate change, fall under the ASEAN Socio-Cultural Community. Existing regional soft agreements in the forest sector such as the ASEAN C&I, FLEG efforts and the timber legality standard are now to be embedded into the cross-sectoral approach.

Source: ADB (2009), ASEAN (2007), ASEAN (2008a, b, c, d), ASEAN (2009a, b), Eucker and Hein (2010), Fawzia (2010), Göhler et al. (2009b), Hinrichs (2008, 2009), Thang (2009, 2010), Yusuf and Francisco (2009)

12.4.2.2 Regional Criteria and Indicator Processes

This section moves the focus away from both international regimes and intergovernmental organizations and builds the bridge to informal regional processes. The international efforts to establish a forest convention led to the emergence of nine

⁶ The three pillars are: Political-Security Community, Economic Community and Socio-Cultural Community.

regional criteria and indicator (C&I) processes,⁷ specifically under the auspices of the Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests. There is little doubt that the C&I processes resulted in significant learning about the science of sustainable forest management that permeated a range of stakeholders and more authoritative policy processes (Cashore et al. 2010). They led to broad consensus around seven thematic elements regarding SFM and respective criteria (McDermott et al. 2007).⁸ This standard was accepted by FAO member countries as well as the UNFF (FAO 2006b) and strengthens the comparability of domestic forest policies.

Although the C&I provide an important evaluative instrument, comprehensive monitoring, reporting and verification systems remain weak regarding their impact on forest management policies and practices on the ground (Siry et al. 2005). On the other hand, the C&I processes seen as intergovernmental learning networks reinforce national sovereignty by supporting countries in developing their own policies (Cashore et al. 2010). These policies may reach down to local levels through corresponding C&I for forest management units. Partly, processes at the level of forest management units are driven by local communities who want to manage their forests sustainably (Thang 2008a). Although direct causal linkages are difficult to establish, such observations give an indication of how norm development on higher administrative scales, if organized in a participatory manner, may contribute to behavioral change and win the support of local stakeholders.

12.4.2.3 Regional Good Forest Governance Networks

In parallel to the normative-oriented C&I processes, more action-oriented attempts to strengthen forest institutions were made under the auspices of ‘forest law enforcement and governance’ (FLEG). FLEG was triggered by the G-8 Summit in 1998, when governments called for fighting against illegal logging (G8 2008). Four regional FLEG processes have been initiated, co-hosted by both producer and consumer governments and the World Bank, in East Asia and the Pacific, Africa, Europe and North Asia, and in Central America.

Outcomes of these regional FLEG efforts include political commitments through voluntary ministerial declarations, which prioritize regional/international and national themes (Bali Declaration adopted in 2001, Yaounde Declaration adopted in 2003, St- Petersburg Declaration adopted in 2005), the creation and

⁷The nine processes are: C&I of the International Tropical Timber Organization (ITTO), the Pan-European process through the Ministerial Conference for the Protection of Forests in Europe (MCPFE), the Montreal Process for temperate and boreal forests, the African Timber Organization’s C&I, the Dry-Zone Africa Process, the Tarapoto Process for the Amazon region, the Lepaterique Process for Central America, as well as C&I processes in the Near East and on Dry Forests in Asia (FAO 2006b). In the case of ITTO, it is an international process, not regional.

⁸The seven elements are: extent of forest resources, biological diversity, forest health and vitality, productive functions of forest resources, protective functions of forest resources, socio-economic functions, legal, policy and institutional framework.

dissemination of FLEG-specific knowledge (Contreras-Hermosilla 2007) and capacity building (Brown et al. 2008a). In addition, FLEG processes influenced the placement of illegal logging on the agenda of regional organizations in South-east Asia, Central Africa and Central America (Contreras-Hermosilla 2007) and motivated follow-up initiatives such as the recent EU program on ‘Improving Forest Law Enforcement and Governance in the European Neighborhood Policy East Countries and Russia’ and the EU Forest Law Enforcement, Governance and Trade (FLEGT) initiative.

On the one hand, follow-up action at country levels and on the ground results have proven elusive (Contreras-Hermosilla 2007; FAO 2009). Despite broad coalitions of support, FLEG processes have not yet achieved the expected results (Cashore and Stone 2012). On the other hand, there is evidence that in contrast to forest convention efforts, FLEG processes enhanced national sovereignty (Cashore et al. 2010) and encouraged governments to develop their own frameworks and standards (McDermott et al. 2010). For instance, in the Europe and North Asia region attention was focused on the development of national action plans (World Bank 2006b, c; Salmi and Samyn 2008).

Importantly, the soft, informal environments under the auspices of FLEG created policy learning networks among countries that involved civil society and private actors (IUCN 2005; TFD 2005; Thang 2008b) and fostered exchange about countries’ experiments with various policy instruments (FAO and ITTO 2005; Pescott et al. 2010). The learning process, nurtured by efforts on domestic good forest governance (Glück et al. 2005; Cashore 2009a; World Bank 2009b; WRI 2009), contributed to greater recognition that FLEG needs to be put into a wider public policy perspective. For instance, it must be linked to domestic reforms targeting equitable tenure rights and benefit-sharing systems, societal processes, long-term sustainable development strategies and the modernization of the public administration. Learning revealed how a narrow focus primarily on law enforcement measures is insufficient to address problems such as illegal logging, wildlife poaching, encroachment and corruption (World Bank 2006a; Salmi and Samyn 2008).

The current debate on REDD+ confirms that many countries continue to have an urgent need to clarify forest tenure and use rights for local forest-dependent stakeholders, as well as to set appropriate governance standards for implementation, monitoring and evaluation (Robledo et al. 2008). In this context, ongoing processes on national forest programs are earning greater attention as policy frameworks that are flexible enough to accommodate both national FLEG action plans as well as REDD + approaches (Göhler et al. 2009a).

Some scholars suggest that efforts summarized under FLEG have contributed to substantial progress in the fight against illegal logging. For instance, Lawson and MacFaul (2010) estimate that in the last decade in Indonesia illegal logging has fallen by 75 %, up to 17 million hectares of forest have been protected from degradation and at least 1.2 billion tons of carbon dioxide emissions have been avoided. China and Vietnam have both signed non-binding Memoranda of Understanding on timber with a number of trade partners as a result of their participation in the East Asia and Pacific FLEG process (*ibid*).

In 2003, the EU adopted its FLEGT Action Plan. The centerpiece of this action plan are ‘Voluntary Partnership Agreements’ (VPA) between the EU and timber producing countries to avoid the import of illegal timber into the EU market (next section).

In addition to bilateral VPA processes that are underway in Indonesia (VPA signed in September 2013), Malaysia and Vietnam, the EU complements its efforts through a region-specific approach in Southeast Asia, which serves as a venue for learning from the experiences of peers (EFI 2009). While the more technocratic FLEGT approach seems to fall short of addressing the broader challenge of forest governance, it may intersect with other policy instruments by providing useful contributions to baseline problem solving (Cashore et al. 2010).

12.4.3 Non-state Governance: New Ways of Shaping Good Forest Governance

A decade and a half ago, one of the most innovative institutions in global forest management was created through the global supply chain-focused institution known as forest certification or ‘non-state market-driven’ global governance (Cashore et al. 2007). The idea of product labeling was initially met with resistance from tropical producer countries. Following general frustration of many of the world’s leading environmental groups over the failure of intergovernmental efforts to achieve a binding global forest convention, the World Wide Fund for Nature (WWF) spearheaded a coalition of environmental, social and business activists to establish the Forest Stewardship Council (FSC) certification program in 1993. The approach of the FSC was designed to address many of the failures noted above. Importantly, it promoted a governance approach in which business interests could not dominate the policy-making process – a direct rebuke to their concerns that many domestic and intergovernmental efforts appeared captured by the very business interests they sought to regulate (*ibid*). However, instead of dismissing neo-liberal ideas that many argue were at the heart of the failures noted above, FSC strategists sought instead to embrace global markets by embedding in them socially and environmentally responsible business practices.

The FSC has a top-down approach in that it requires all standards adhere to fundamental principles and criteria, which include requiring that managers address indigenous peoples’ and local communities’ rights to resources; but also a bottom-up approach in that the specific standards are developed through multi-stakeholder national or subnational working groups.

This means that, if successful, these efforts could create a win-win solution by simultaneously championing the goals of neo-liberal markets; amelioration of deteriorating environmental functions of the world’s forests; and the promotion of poverty alleviation, indigenous rights, and community participation. This may explain why the World Bank has been so instrumental in supporting FSC-style certification (Elliott and Schlaepfer 2001; Gullison 2003), as it represents an

opportunity to support their ongoing efforts to promote socially and environmentally responsible practices in ways that are consistent with their broader neo-liberal goals.

While many firms in the forest sector initially balked at the idea of outside scrutiny of their forest practices, by the mid-2000s, two discernible trends had emerged. First, most industrialized countries in North America and Europe came to embrace third-party certification, though many supported ‘FSC competitors’ that emerged in the 1990s as an alternative choice to the FSC. These alternative programs were generally much more flexible than FSC standards, leaving specific decisions about what to do to meet objectives up to the firm, rather than the certification program. Second, uptake in developing countries has been much more controversial and limited. Existing studies have found that lack of capacity, the complicated nature of forest management, lack of clear rights to resources, and ongoing deforestation, explain the more limited uptake (Cashore et al. 2006).

Partly as a result, many strategists are now focusing on addressing good forest governance and illegal logging through promoting efforts such as the EU FLEGT initiative, or ‘legality verification’ through EU and US import laws. These efforts, are seen as distinct from certification in that they reinforce domestic sovereignty by verifying that forest managers and companies follow the laws that governments develop, but have difficulty enforcing (Bernstein et al. 2010).

The EU began focusing on illegal logging a decade ago. Though most early attempts did not result in discernible changes on the ground (Currey 2001; Tacconi 2007), the EU and the US have been redoubling efforts to promote good forest governance in the tropics through demand-side controls. The FLEGT approach is complemented by public procurement policies and the EU Timber Regulation, which became effective in March 2013. This regulation is similar to the US Lacey Act, which was amended in 2008 to prohibit the sale of illegal timber products into the US market. The EU Timber Regulation obliges operators to exercise due diligence in identifying the legality and traceability of timber products, and to establish, timber legality assurance’ systems to prove compliance. The process of legality verification includes third-party auditing of forest practices to assess whether companies and governments meet their commitments.

12.4.4 Transnational Learning Networks: Innovative Bottom-Up Approaches to Forest Governance

While the significance of understanding when and where stakeholders support institutions cannot be overstated, it is equally important to assess how policy learning is reinforcing, or detracting from, efforts towards shaping appropriate institutional settings for SFM and towards integrating rural communities into forest management decision-making. This section focuses on the role of transnational policy networks in providing opportunities for sharing knowledge and encouraging

learning about policy solutions, and on how this may help address persistent obstacles to rural forest development.

Global and regional forest institutions are informed by countries' own experiences regarding which policy instruments and institutional arrangements have worked or not worked domestically in the past. Not surprisingly, these experiences vary widely and are highly context-specific (World Bank 2006a). Promising developments in forest governance have been found, for instance, regarding community forest management (Agrawal and Angelsen 2009), forest certification (Cashore et al. 2006) and efforts to combat illegal logging (Tacconi 2007). More critical findings about forest institutions include the disempowerment of local communities in the context of REDD+ (Phelps et al. 2010).

Within Southeast Asia, there are many examples of domestic efforts for good forest governance that were well-intended but poorly implemented. These examples include independent forest monitoring in Cambodia (Brown et al. 2008a), community-based forest management (Yasmi et al. 2010), 'Multi-Sectoral Forest Protection Committees' in the Philippines (Cruz and Tapia 2006), land allocation to households in Vietnam (Yasmi et al. 2010), and decentralization efforts in Indonesia (Dauvergne 1994; Colfer et al. 2008; Nomura 2008).

The question that emerges is: In which ways can institutions learn from each other's experiences in order to support appropriate policy choices in changing environments? Transnational 'knowledge networks' provide an invaluable forum for this to occur. An empirical case analyzed in Box 12.2, namely the 'ASEAN Regional Knowledge Network on Forest Law Enforcement and Governance', provides some insight in answering the question.

The assumption is that research about on the ground realities and evidence about the impacts of forest policies on rural local communities would help to increase the effectiveness of policy formulation and local implementation. This may be done through regional benchmarking and the establishment of common standards, guidelines, and comparative assessments regarding the appropriateness of institutions for forest and rural development policies. For instance, comparison can be geared towards finding explanations for why coalitions of support emerged for a specific policy instrument in one context but not in another. Alternatively, comparison can be geared towards evaluating the effectiveness of existing governance institutions. Learning is expected to result in increased knowledge, revised understanding and modified beliefs as prerequisites for policy change. A study by McDermott et al. (2010) on global forest policies provides evidence regarding the usefulness of comparative analysis.

The case study in Box 12.2 provides empirical observations of how regional policy networks contribute to (1) establishing common standards and guidelines; (2) conducting comparative assessments; (3) bridging the implementation gap of regional policies; (4) guiding consensus-building on benchmarks and respective evaluation tools; and (5) promoting normative discourse on good forest governance to enhance the legitimacy of institutions. Table 12.1 provides an overview on principles and criteria of good forest governance as pushed forward through the ASEAN knowledge network (Cashore 2009a). These functions demonstrate how

transnational networks help to better understand the appropriateness of policy instruments and create effective forms of institutional intersection.

Box 12.2 How a Regional Knowledge Network in ASEAN Helped to Improve Forest Law Enforcement and Governance

The ‘ASEAN Regional Knowledge Network on Forest Law Enforcement and Governance’ was established in 2008 with the primary motivation to better inform decision-makers through organized processes of policy learning. The following contributions by the network to improving forest governance through a regional approach can be observed:

First, the network guided consensus-building on a regional evaluative tool to assess the outcomes of domestic efforts to implement ASEAN’s work plan on FLEG. The standard accommodates, among others, principles such as transparency, public disclosure policies, equitable participation, fair tenure rights and the recognition of customary rights. The network extended the learning process beyond abstract policy goals to more practical, on the ground specifications by organizing a structured exchange of countries’ experiences about successes and failures of FLEG policies. As an example of how policy innovations may spread through transnational networks, the Philippines made use of an ASEAN peer review mechanism to assess FLEG.

Second, the network initiated a normative discourse on delineating principles of good forest governance that takes into consideration the specific realities of Southeast Asia, as well as international benchmarks and good practices. It encouraged consensus about criteria for inclusiveness, transparency and accountability beyond issues of enforcement and compliance. It also developed recommendations for the ASEAN Senior Officials on Forestry regarding concrete practical interventions and highlighted the clarification of forest property rights and stakeholder support.

Third, the network analyzed various features of forest governance in the region in order to draw decision-makers’ attention to intersecting institutions and to influence the political agenda regarding FLEG. Research topics included potential improvements to policy implementation through ongoing processes on national forest programs, implications of new market instruments such as the EU FLEGT Action Plan and the US Lacey Act, the principle of subsidiarity with a focus on local institutions, as well as impacts on local livelihoods. In this capacity, the network supplied information about local conditions, which is indispensable for evidence-based policy making, a public policy movement to enhance the efficiency and effectiveness of institutions.

Finally, an additional mechanism for increased transparency has been created with the internet-based ASEAN Forest Clearing House Mechanism where stakeholders make data and knowledge publicly available.

(continued)

Box 12.2 (continued)

Source: ASEAN (2008d), ASEAN (2009b), Cashore (2009b), Göhler and Schwaab (2009), Göhler et al. (2009), Howlett et al. (2009), Koeng (2009), Koeng and Malessa (2009), Pescott et al. (2010), Soriaga (2010), Soriaga and Cashore (2009), Thang (2009, 2010)

12.4.4.1 Translating Learning into Policy Development in Network Governance

Regional knowledge networks such as the ASEAN knowledge network on FLEG reflect what the essence of policy learning is, namely to inform decision-makers based on evidence (Sanderson 2002). A key management challenge in this regard is to make the knowledge generated usable for policy development. Researchers have found positive effects of transnational communication on domestic environmental public policy (Holzinger et al. 2008). Learning networks are a common form of transnational communication that diffuse ideas that have proven successful and help translate those ideas into country-specific policy responses. In turn, this may foster durable and adaptive forest governance institutions across the region.

In order to explain how favorable conditions can be created for policy learning to occur, it is necessary to examine the relationship between policy-makers and scientists/experts in two types of networks: private and public-private. In private networks such as the Global Forest Expert Panel (GFEP), learning occurs first of all among independent experts. In public-private networks such as the ASEAN knowledge network, the learning process includes a transparent policy process that intersects more directly with other governing institutions. In concrete terms, a public-private network such as the one described in Box 12.2 may be composed of government officials from forestry administrations of a number of countries as well as experts from non-governmental organizations, academia, think tanks and the private sector. On the one hand, such networks represent an important forum of bottom-up policy networks. On the other hand, they build strong ties with top-down intergovernmental institutions. Interaction between scientific knowledge and policy-making is, thus, more frequent and more common in public-private networks than in private networks.

In order to explain further how the functions of transnational networks actually result in policy learning, Howlett and Joshi-Koop (2011) suggest shifting attention to policy analytical capacity. In the ASEAN network, analytical capacity is ‘outsourced’ to the policy network. At the same time, strong ties between those who generate knowledge and those who will use it are maintained. One means to ensure this is to restrict the actual membership to experts from within the transnational geographical area, whereas external experts (from outside that region) participate in a looser form (i.e. not as members but, for instance, as partners).

Table 12.1 Principles and criteria of good forest governance and some examples

Principles	Criteria and examples
Inclusiveness	<ul style="list-style-type: none"> (a) Formalized venue for participation, e.g. as members of knowledge networks, formalized consultations for national forest programs (b) Widespread invitations (c) Notification of policy deliberations (d) Meaningful participation rather than ‘lip-service’ <ul style="list-style-type: none"> • Permit stakeholders to deliberate on substantive questions • Allow input on different policy options • Include knowledge raised by stakeholders in addition to knowledge generated within the policy subsystem
Transparency	<ul style="list-style-type: none"> (a) Notification <ul style="list-style-type: none"> • Of intent to create a policy • Of draft proposals • Of final policy decision (b) Conflict of interest rules <ul style="list-style-type: none"> • Eliminate personal gain of policy maker for a particular decisions (c) Make (legal) influence transparent <ul style="list-style-type: none"> • Clear identification of groups involved • Identify their interests • Document their efforts (d) Eliminate secret influence <ul style="list-style-type: none"> • Undocumented lobbying • Side payments (corruption) (e) Information/knowledge sharing, e.g. through ASEAN Forest Clearing House Mechanism <ul style="list-style-type: none"> • Quantitative metrics • Measurement
Accountability	<ul style="list-style-type: none"> (a) Explain rationale <ul style="list-style-type: none"> • For initial policy deliberations, e.g. scientific analysis by Global Forest Expert Panels • Through draft comments, e.g. organized through ASEAN knowledge networks • For final decision (b) Institutionalize public comment <ul style="list-style-type: none"> • Formally recognize • Formally respond (c) Make it clear who is making the decisions (d) Power sharing

Source: Compiled and adapted from Cashore (2009a) and Esty (2006)

The emphasis on the mobilization of analytical capacity within the institutional boundaries of a region like ASEAN is in line with recent findings that decision-makers are rather unlikely to use knowledge from external sources (Howlett and Joshi-Kopp 2011).

12.4.4.2 Intersecting Policy Networks for Sustainable Rural Development

The previous section uncovered how regional knowledge networks accomplish their mission of promoting policy learning in a multi-level governance landscape in order to reorient forest institutions to be more appropriate and more legitimate. The learning process in a transnational public-private context is informed by experiences beyond domestic jurisdictions and a variety of interest groups. While recent findings suggests that such networks and coalitions serve as bridging institutions for effective policy learning, more polycentric approaches, i.e. engaging various levels of governance, are necessary to address the complex, interrelated problems in rural areas in times of change (Cheng et al. 2011).

Beyond the contributions of issue-specific policy networks, cross-sectoral problems like climate change and rural development require learning across coalitions themselves. As an example, scholars point out that weak overall governance poses high risks for REDD+, in particular from the perspective of forest communities (Saunders and Nussbaum 2007; Angelsen 2008; Peskett et al. 2008; Cotula and Mayers 2009; Springate-Baginski and Wollenberg 2010).

Comprehensive strategies like the ASEAN Multi-Sectoral Framework on Climate Change and Food Security (Box 12.1) provide one opportunity to adapt learning structures such as transnational knowledge and other forms of policy networks in order to support appropriate, long-lasting institutions for sustainable rural development. The task for individual institutions – be it those which focus on forest governance, REDD+ or public policy – is to invite perspectives from other governance actors in order to reflect on and adapt previous policy choices. As earlier sections revealed, problems like deforestation and forest degradation demonstrate the need to connect learning networks in order to increase the impact of forest institutions.

12.4.5 Domestic Governance and Local Institutions: The Backbone of Policy Implementation

While in many cases forest-dependent communities have historically acted as effective stewards of their forests, these communities have frequently been excluded from forest management decision-making, as well as from the benefits gained from forest resources, under the pretext that they are irresponsible forest stewards (Dove 1983; Scott 1998). As a result, communities have often managed forests in a non-sanctioned manner that precludes them from engaging in broader institutional networks (Wollenberg et al. 2009).

This section first describes forest management trends at the community level, and then outlines some opportunities for improving forest management outcomes at

this level. It concludes with a case study taken from Indonesia that applies, in a local context, the concepts of institutional intersection, authority and legitimacy, as well as the logic of appropriateness.

12.4.5.1 Decentralization

Over the last 20 years, trends towards decentralization have redefined the relationship between local communities and forest management institutions. Decentralization was initially encouraged as a means to bring decision-making closer to the communities that depend on forests for their livelihoods (Larson 2005). Because decentralization has been applied using a number of different processes, it is helpful to break the term down into multiple sub-definitions. Wollenberg et al. (2009) distinguish between state-sanctioned community-based natural resource management (CBNRM), whereby state institutions grant formal rights for management to community-level institutions (a process defined as devolution), and local governance, whereby formal control is transferred from centralized state institutions to local state institutions such as provinces or districts (a process defined as deconcentration).

While communities have benefited in some instances from increased accessibility to decision-making institutions, decentralization processes have been hindered by the retention of control and resources by central governments (Ribot et al. 2006). Additionally, decentralization has often been instituted without adequate preconditions, such as the presence of local institutions that are both downwardly accountable and responsive to the interests of communities (Ribot 2005). In Indonesia, decentralization led to an explosion of resource conflicts, forest extraction and environmental degradation, as previously excluded local elites vied for the benefits of newly accessible and abundant forest resources (Peluso and Harwell 2001; Curran et al. 2004; McCarthy 2004). In Malinau District, East Kalimantan, in particular, decentralization led to newfound opportunities for community revenue generation from forest resources, but resulted in widespread ethnic conflict, corruption and the rapid consumption of generated revenue (Limberg et al. 2007; Sudana 2009).

12.4.5.2 Community Land Tenure

One of the most significant obstacles to successful integration of local communities into the broader landscape of forest institutions has been the lack of clarity for community land tenure rights. Without adequate protections, local communities have often been excluded from the benefits of forest resource extraction (Dove 1983; Scott 1998; Sikor et al. 2010). In addition, without adequate land tenure rights, traditional forest uses and forest management practices are often ignored or undervalued (Colfer 2005). Efforts to improve the environmental and social outcomes of forest management have also been consistently impeded by unclear

community land tenure (Peluso 1993; Colfer 2005; Boyd et al. 2007). While the forest-related needs of local communities have gained more recognition as a result of decentralization and some of the global and regional initiatives described in previous sections, accompanying land tenure clarity has remained elusive.

Ongoing developments regarding REDD+ have rekindled the debate regarding the role of forest-dependent communities in a global institutional landscape. While REDD+ has the potential to provide significant benefits to forest-dependent communities, a large number of scholars and advocates have expressed alarm over the potential for REDD+ to lead to restrictions on communities' continued use of, and access to, forests (Brown et al. 2008b; Seymour 2008; Blom et al. 2010; Okereke and Dooley 2010). While Chhatre and Agrawal (2009) found that increased local autonomy over forests resulted in greater carbon storage benefits, it remains an open question as to whether REDD+ will result in significant clarification over the land tenure and property rights of forest-dependent communities. This has major implications for the effectiveness of REDD+, as a lack of clarity regarding land tenure rights for communities has prevented CBNRM and Payment for Environmental Services (PES) initiatives from meeting rural development objectives in the past (Nanang and Inoue 2000; Boyd et al. 2007). More details on PES are given in Chap. 9.

12.4.5.3 Opportunities for Institutional Change at the Community Scale

A common critique from practitioners and scholars is that governance institutions are often designed in ways that truncate their ability to be seen as appropriate, or to gain legitimacy, at the local and/or community level. Greater care, some argue, needs to be placed in linking SFM institutional networks with the economic development goals of local communities. Because of the complexity associated with incorporating such goals, the thorny tradeoffs between SFM and rural development are often unacknowledged and unaddressed (Blom et al. 2010). In addition, the uncertainties surrounding land tenure and property rights are often major barriers to the successful incorporation of communities into larger institutional networks. Equally important is the fact that local-level forest management requires site-specific approaches that are context-appropriate and provide adequate incentives under a broad range of cultural and environmental conditions (Ostrom 1990; Ostrom 2000). Without the ability of institutions to remain adaptive and appropriate within these diverse contexts, studies have shown they will face challenges in producing marked benefits for rural communities (Salafsky and Margoluis 2004; Colfer et al. 2008).

Box 12.3 provides an on the ground example taken from Malinau District, East Kalimantan, Indonesia. This case is used because the challenges facing the rural communities of Malinau, such as conflicting demands for environmental protection and economic development, insecure land tenure, poor institutional legitimacy, and the struggle to retain traditional ways of life, are representative of many

forest-dependent regions (Belcher et al. 2004; Peskett et al. 2008; Seymour 2008). The conclusions drawn from this case may be applicable to other forest-dependent regions and serve to highlight the relevance of the conceptual pathways used throughout the chapter.

Box 12.3 highlights the difficulties inherent to the incorporation of local and/or community institutions into broader forest governance institutions. Based on this real case, how might REDD+ intersect with existing forest management institutions in order to reduce deforestation and forest degradation, while also ensuring that forest-dependent communities receive an equitable share of the benefits from REDD+? How might REDD+ come to be viewed as an appropriate and legitimate institution by forest-dependent communities?

First, given pervasive distrust and lack of transparency at the community level, REDD+ would need to establish significant preconditions on existing forest management institutions to ensure that REDD+ comes to be viewed by forest-dependent communities as both appropriate and legitimate. In the absence of such preconditions, REDD+ may come to be seen by local communities as another institution designed to expropriate the forest resources on which they depend.

Second, unless the role of customary institutions and state law is clarified, existing forest management institutions will not likely gain legitimacy from the perspective of forest-dependent communities. To gain such legitimacy would require a radical transformation within existing local institutions to a system that clearly incorporates elements of customary forest management. If successful, such a transformation would allow for a shift from forest governance predicated on the logic of consequences to one based on a logic of appropriateness, in which forest-dependent communities support policy choices based on cultural norms and values (March and Olsen 1995; Bernstein and Cashore 2007). Such a shift is believed to yield more enduring forest institutions (Bernstein and Cashore 2007).

Box 12.3 On the Ground Forest Management in Malinau District, East Kalimantan, Indonesia

Despite widespread deforestation throughout Indonesia over the past 20 or more years, 90 % of Malinau's area (~3.62 million ha) remains forested. While international non-governmental organizations (NGOs) seek to protect Malinau's remaining forests, there is significant pressure for deforestation in Malinau, particularly for the establishment of oil palm and *Acacia mangium* plantations. In recent years, the international community has identified the potential for conserving Malinau's remaining forestlands through the REDD+ mechanism in which Malinau's forest management stakeholders would be given financial incentives for forest conservation.

Forest management in Malinau is currently highly fluid and chaotic, which has resulted in an atmosphere that encourages short-term, unsustainable resource extraction and short-term, unsustainable resource consumption. In

(continued)

Box 12.3 (continued)

instances where forest resources have been commercially extracted by timber concession holders, communities have experienced high frequencies of conflict and rapid environmental and social change. Many residents of Malinau claim to feel conflicted between desiring to protect remaining forests in order to maintain traditional cultures and traditional forest uses, while also desiring to benefit from forest resource extraction and deforestation before someone else does.

Corruption and a lack of transparency are perceived to characterize the decision-making processes of most, if not all, forest management institutions, including local NGOs. Despite some decentralized decision-making processes, forest management decisions in Malinau's District Government are still made with limited transparent consultation with local communities. As a result, many residents of rural Malinau's forest-dependent communities believe that district forest management institutions (such as administrative bodies of the Ministry of Forestry) make decisions for personal gain. One resident of Paking, a rural Malinau village, stated the following when asked about the potential for his village to receive financial incentives under the REDD+ mechanism:

Money should go directly to the villages. People here are pessimistic about the district government giving compensation to villages. Compensation from the government is always too small. There is no transparency. (Translated from Indonesian).

Insufficient transparency and corruption also often characterize decisions made by forest management institutions within communities themselves. Suspicion regarding the mishandling of logging revenues received by village leaders in the late 1990s/early 2000s led to rampant short-term consumption that could have otherwise been used for community-wide improvements in health, education and infrastructure. Often, these suspicions pit different ethnic groups in the region against each other.

In addition, unclear and inconsistent recognition of the joint roles of *adat* (customary) and state institutions have also contributed to forest management inequity and environmental degradation in Malinau. While decentralization reforms that were passed in Indonesia in the late 1990s recognized *adat*, or customary law, this recognition continues to be subject to the application of district governments themselves and decentralization has not allowed for a much greater recognition of *adat* than previous governance regimes. The uncertainty surrounding the role of *adat* in forest management decisions manifests itself most clearly in ongoing land tenure disputes in Malinau. While land tenure claims have traditionally been based on *adat* rules, state institutions do not often recognize these claims, or do so inconsistently.

(continued)

Box 12.3 (continued)

One outcome of this uncertainty is increased environmental degradation, as some village leaders explained that they supported forest conversion and exploitation as a means to affirm their village's tenuous land claims.

Source: Kamelarczyk and Strandby (2009), Limberg (2009), Malinau District Government (2007), Moeliono and Limberg (2009), Palmer (2009), Rhee (2009), Sandker et al. (2007), Sudana (2009), Thorburn (2002), Interviews with village residents as well as local government and NGO officials (July-August, 2009)

12.5 Outlook

This chapter reviewed forest institutions at multiple scales of governance, ranging from global intergovernmental institutions to domestic and local institutions. It emphasized how these institutions may overlap or interact with each other to result in favorable or unfavorable outcomes for sustainable forest management. The review required an interdisciplinary analytical perspective, which was realized through the lenses and connections of five conceptual pathways. In addition, selected case studies of regional learning networks in Southeast Asia and district level forest governance in Indonesia were presented to exemplify how different forest institutions recognize the needs of local communities and concerns of the global community alike.

The main question guiding the review was how enduring, problem-focused and authoritative forest institutions can be encouraged in order to promote good forest governance. This was mainly assessed through March and Olsen's logic of appropriateness and the related concepts of political authority and legitimacy. Three key findings of this chapter are summarized below and provide recommendations for practitioners:

First, individual forest institutions are unable by themselves to address the interrelated economic, environmental and social challenges that global change poses for rural economies. As an example, efforts to establish a global forest convention failed because they fell short of sufficient support from key stakeholders. However, they contributed, among other efforts, to establish international principles and norms. At the regional level, FLEG processes were able to reinforce domestic sovereignty and, thus, win the support of governments and other interest groups in spearheading domestic good forest governance initiatives.

Because individual institutions have proven insufficient to address complex forest governance problems, the task for policy-makers remains to foster synergistic and avoid perverse effects among various institutions. A promising approach to overcome institutional fragmentation and related 'governance gaps' is to reorient the focus from isolated institutions and either/or solutions towards intersecting institutional arrangements across administrative scales of governance. It is argued

in this chapter that the concept of institutional intersection is well suited to build upon the strengths, and mitigate the weaknesses, of both traditional and new forms of governance. It offers a framework that favors the co-existence of hierarchical, market-oriented and voluntary institutions and connects authoritative policy responses by sovereign governments with the energy of bottom-up policy networks and local institutions.

Second, more attention should be paid to the processes through which institutions gain authority and come to be seen as legitimate. Political authority and legitimacy are prerequisites for good forest management and require the involvement of local communities and transparent policy processes. To gain legitimacy, stakeholders must deem their institutions to be appropriate to their respective environmental, political and social contexts. The case study from Indonesia illustrated that it would be difficult in that particular setting for the REDD+ mechanism to achieve political authority and legitimacy at the community scale. This, in turn, could impair the legitimacy and political authority of REDD+ at national, regional and global scales. On the other hand, if REDD+ were to be incorporated into an institutional landscape that met preconditions of participation and transparency, it could intersect with existing institutions in a way that would foster good forest governance.

Third, scholars and practitioners must place greater emphasis on policy learning processes. A key aspect of policy learning is its ability to promote behavioral change of key governance actors. The review of transnational policy networks with the case study from Southeast Asia reveals that flexible and informal institutional arrangements, in contrast to formal regimes, can play an important role in policy learning. Learning about the promises and pitfalls of policy choices and innovations, as well as the mechanisms through which coalitions of policy support emerge, are indispensable to capitalize on synergies between existing forest institutions.

Reinforcing this chapter's focus on intersection, the authors argue that more effective horizontal and vertical interaction among stakeholders, both within and beyond forestry, is paramount to encouraging sustainable rural livelihoods in a globalized world.

References

- Adam S, Kriesi H (2007) The network approach. In: Sabatier PA (ed) *Theories of the policy process*. Westview Press, Boulder
- ADB (2008) Emerging Asian regionalism. A partnership for shared prosperity. Highlights. Asian Development Bank (ADB), Manila
- ADB (2009) The economics of climate change in Southeast Asia: a regional review. Asian Development Bank (ADB), Manila
- Agrawal A, Angelsen A (2009) Using community forest management to achieve REDD+ goals. In: Angelsen A (ed) *Realising REDD+: national strategy and policy options*. Center for International Forestry Research (CIFOR), Bogor, pp 201–211

- Agrawal A, Chhatre A, Hardin R (2008) Changing governance of the world's forests. *Science* 320 (5882):1460–1462
- Albrecht J, Obser A (2003) Institutional dimensions of international public forest policies. Open meeting of the Human Dimensions of Global Environmental Change research community, panel on "Institutional Dimensions of Global Environmental Change: Fit, Interplay and Scale". Montréal, 16–18 Oct 2003
- Albright EA (2011) Policy change and learning in response to extreme flood events in Hungary: an advocacy coalition approach. *Policy Stud J* 39(3):485–511
- Angelsen A (ed) (2008) Moving ahead with REDD. Issues, options and implications. Center for International Forestry Research (CIFOR), Bogor
- Angelsen A, Boucher D, Brown S, Merckx V, Streck C, Zarin D (2011) Modalities for REDD+ reference levels: technical and procedural issues. Meridian Institute, Washington, DC
- ASEAN (2007) ASEAN criteria and indicators for sustainable management of tropical forests. Association of Southeast Asian Nations (ASEAN), Jakarta
- ASEAN (2008a) ASEAN common position paper on reducing emission from deforestation and forest degradation (REDD) in developing countries. Association of Southeast Asian Nations (ASEAN), Jakarta
- ASEAN (2008b) ASEAN inputs to the country-led initiative (CLI) in support to the United Nations Forum on Forests (UNFF). Financing for sustainable forest management: an international dialogue. Association of Southeast Asian Nations (ASEAN), Jakarta
- ASEAN (2008c) ASEAN inputs to the eighth session of the United Nations Forum on Forests (UNFF). Forests in a changing environment and means of implementation for sustainable forest management. Association of Southeast Asian Nations (ASEAN), Jakarta
- ASEAN (2008d) Work plan for strengthening forest law enforcement and governance (FLEG) in ASEAN 2008–2015. Association of Southeast Asian Nations (ASEAN), Jakarta
- ASEAN (2009a) ASEAN joint statement on climate change to the 15th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change and the 5th session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol. Association of Southeast Asian Nations (ASEAN), Jakarta
- ASEAN (2009b) A proposed outline "Format for assessing forest law enforcement and governance (FLEG) implementation in ASEAN Member States". ASEAN technical workshop on the thematic elements for assessing FLEG implementation in ASEAN member states in Kuala Lumpur. Association of Southeast Asian Nations (ASEAN), Jakarta
- Auer MR, Karr-Colque C, Samman S (2005) Taking stock of the international arrangements on forests. *J Forest* 103(3):126–133
- Belcher B, Rujehan NI, Achdiawan R (2004) Rattan, rubber, or oil palm: cultural and financial considerations for farmers in Kalimantan. *Econ Bot* 58(Supplement):S77–S87
- Bennett CJ, Howlett M (1992) The lessons of learning: reconciling theories of policy learning and policy change. *Policy Sci* 25(3):275–294
- Benz A (2004) Multilevel Governance – Governance in Mehrebenensystemen. In: Benz A (ed) Governance. Regieren in komplexen Regelsystemen. VS Verlag für Sozialwissenschaften, Wiesbaden
- Benz A, Lütz S, Schimank U, Simonis G (2007) Einleitung. In: Benz A, Lütz S, Schimank U, Simonis G (eds) Handbuch Governance. Theoretische Grundlagen und empirische Anwendungsfelder. VS Verlag für Sozialwissenschaften, Wiesbaden, pp 9–25
- Bernstein S, Cashore B (2007) Can non-state global governance be legitimate? An analytical framework. *Regul Gov* 1:347–371
- Bernstein S, Cashore B, Atyi RE, Maryudi A, McGinley K (2010) Examination of the influences of global forest governance arrangements at the domestic level. In: Rayner J, Buck A, Katila P (eds) Embracing complexity: meeting the challenges of international forest governance. International Union of Forest Research Organizations (IUFRO), Vienna, pp 111–135

- Biermann F (2004) Global environmental governance. Conceptualization and examples. Global governance working paper no. 12. The Global Governance Project, Amsterdam/Berlin/Oldenburg/Potsdam
- Blom B, Sunderland T, Murdiyarso D (2010) Getting REDD to work locally: lessons learned from integrated conservation and development projects. *Environ Sci Policy* 13(2):164–172
- Blumenthal J (2005) Governance – eine kritische Zwischenbilanz. *Z Polit* 4(15):1149–1180
- BMZ (2004) National forest programmes: instruments for improving sector governance? Experiences of German development cooperation. Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ), Bonn
- Bodansky DM (1999) The legitimacy of international governance: a coming challenge for international environmental law? *Am J Int Law* 93:596–624
- Börzel TA (1998) Organizing Babylon – on the different conceptions of policy networks. *Public Adm* 76(2):253–273
- Börzel TA (2005) European Governance – nicht neu, aber anders. In: Schuppert GF (ed) - Governance-Forschung: Vergewisserung über Stand und Entwicklungslinien. Nomos, Baden-Baden, pp 72–94
- Boyd E, Gutierrez M, Chang M (2007) Small-scale forest carbon projects: adapting CDM to low-income communities. *Glob Environ Chang* 17:250–259
- Bozzi L, Cashore B, Levin K, McDermott C (2012) The role of private voluntary climate programs affecting forests: assessing their direct and intersecting effects. In: Ronit K (ed) Business and climate policy: the potentials and pitfalls of private voluntary programs. United Nations University Press, Tokyo/New York/Paris
- Brack D (2006) Regional cooperation to combat illegal logging. Options for ASEAN and the East Asia region. Chatham House, London
- Brown D, Schreckenberg K, Bird N, Cerutti P, Del Gatto F, Diaw C, Fomete T, Luttrell C, Navarro G, Oberndorf R, Hans T, Wells A (2008a) Legal timber. Verification and governance in the forest sector. Overseas Development Institute (ODI), London
- Brown D, Seymour F, Peskett L (2008b) How do we achieve REDD co-benefits and avoid doing harm? In: Angelsen A (ed) Moving ahead with REDD. Center for International Forestry Research (CIFOR), Bogor, pp 107–118
- Busch P-O, Jörgens H, Tews K (2005) The global diffusion of regulatory instruments: the making of a new international environmental regime. *Ann Am Acad Polit Soc Sci* 598(1):146–167
- Cashore B (2002) Legitimacy and the privatization of environmental governance: how non-state market-driven (NSMD) governance systems gain rule-making authority. *Gov Int J Policy Adm Inst* 15(4):503–529
- Cashore B (2009a) Key components of good forest governance in ASEAN, vol 6, Exlibris series. ASEAN-German Regional Forest Programme (ReFOP), Jakarta
- Cashore B (2009b) Structure for ‘FLEG’ at a glance. ASEAN Regional Knowledge Network on FLEG. Association of Southeast Asian Nations (ASEAN), Jakarta
- Cashore B, Stone M (2012) Can legality verification rescue global forest governance? Analyzing the potential of public and private policy intersection to ameliorate forest challenges in Southeast Asia. *Forest Policy Econ* 18:13–22
- Cashore B, Gale F, Meidinger E, Newsom D (2006) Forest certification in developing and transitioning countries. *Environ Sci Policy Sust Dev* 48(9):6–25
- Cashore B, Auld G, Bernstein S, Mc Dermott C (2007) Can non-state governance ‘ratchet up’ global environmental standards? Lessons from the forest sector. *Rev Eur Commun Int Environ Law* 16(2):158–172
- Cashore B, Galloway G, Cubbage F, Humphreys D, Katila P, Levin K, Maryudi A, McDermott C, McGinley K (2010) Ability of institutions to address new challenges. In: Mery G, Katila P, Galloway G, Alfaro RI, Kanninen M, Lobovikov M, Varjo J (eds) Forests and society – responding to global drivers of change. International Union of Forest Research Organizations (IUFRO), Vienna, pp 441–486

- Chasek PS, Downie DL, Welsh Brown J (2010) Global environmental politics, 5th edn. Westview Press, Boulder
- Cheng AS, Danks C, Allred SR (2011) The role of social and policy learning in changing forest governance: an examination of community-based forestry initiatives in the U.S. *Forest Policy Econ* 13:89–96
- Chhatre A, Agrawal A (2009) Trade-offs and synergies between carbon storage and livelihood benefits from forest commons. *Proc Natl Acad Sci* 106(42):17667–17670
- Colfer CJP (2005) The complex forest. Resources for the Future, Washington, DC
- Colfer CJP, Capistrano D, Dabal GR, Moeliono M (eds) (2008) Lessons from forest decentralization. Money justice and the quest for good governance in Asia-Pacific. Earthscan, London
- Conca K (2006) Governing water. Contentious transnational politics and global institutions building. MIT Press, Cambridge/London
- Contreras-Hermosilla A (2007) Forest law enforcement and governance program. Review of implementation. World Bank, Washington, DC
- Contreras-Hermosilla A, Gregersen HM, White A (2008) Forest governance in countries with federal systems of government. Lessons and implications for decentralization. Center for International Forestry Research (CIFOR), Bogor
- Cotula L, Mayers J (2009) Tenure in REDD. Start-point or afterthought? vol 15, Natural Resource Issues. International Institute for Environment and Development (IIED), London
- Cruz RVO, Tapia MA (2006) A review of the multi-sectoral forest protection committees in the Philippines, vol 6, ODI Forestry Briefing. Overseas Development Institute (ODI), London
- Curran LM, Trigg SN, McDonald AK, Astiani D, Hardiono YM, Siregar P, Caniago I, Kasischke E (2004) Lowland forest loss in protected areas of Indonesian Borneo. *Science* 303:1000–1003
- Currey D (2001) Timber trafficking: illegal logging in Indonesia, South East Asia and international consumption of illegally sourced timber. Retrieved 20 Feb 2002, from <http://www.eia-international.org/campaigns/forests/reports/timber/index.html>
- Dauvergne P (1994) The politics of deforestation in Indonesia. *Pac Aff* 66(4):497–518
- Davenport DS (2005) An alternative explanation for the failure of the UNCED forest negotiations. *Global Environ Polit* 5(1):105–130
- del Río P (2010) Analysing the interactions between renewable energy promotion and energy efficiency support schemes: the impact of different instruments and design elements. *Energy Policy* 38(9):4978–4989
- Dimitrov RS (2005) Hostage to norms: states, institutions and global forest politics. *Global Environ Polit* 5(4)
- Dimitrov RS, Sprinz DF, DiGiusto GM, Kelle A (2007) International nonregimes: a research agenda. *Int Stud Rev* 9:230–258
- Dove M (1983) Theories of swidden agriculture and the political economy of ignorance. *Agroforest Syst* 1:85–99
- Dove MR (2006) Indigenous people and environmental politics. *Annu Rev Anthropol* 35:191–208
- Dove MR (2011) The banana tree at the gate: a history of marginal peoples and global markets in Borneo. Yale University Press, New Haven
- Dunoff JL (2007) Levels of environmental governance. In: Bodansky D, Brunnée J, Hey E (eds) The Oxford handbook of international environmental law. Oxford University Press, Oxford, pp 85–106
- Dutschke M, Wertz-Kanounnikoff S, Peskett L, Luttrell C, Streck C, Brown J (2008) Financing REDD. Linking country needs and financing sources, vol 17, Info Brief. Center for International Forestry Research (CIFOR), Bogor
- EFI (2009) FLEGT Asia regional programme. Supporting responsible trade for Asia's forest. European Forest Institute (EFI), Kuala Lumpur
- Elliott C, Schlaepfer R (2001) Understanding forest certification using the advocacy coalition framework. *Forest Pol Econ* 2:257–266
- Esty DC (2006) Toward good global governance: the role of administrative law. *Yale Law J* 115

- Eucker D, Hein J (2010) Klimawandel in Südostasien. Die ASEAN als Wegbereiter einer regionalen Klimapolitik? vol 4, GIGA Fokus Asien. German Institute of Global and Area Studies (GIGA), Hamburg
- FAO (2006a) Understanding national forest programmes. Guidance for practitioners. Food and Agriculture Organization of the United Nations (FAO), Rome
- FAO (2006b) Global forest resources assessment 2005 – progress towards sustainable forest management, vol 147, FAO Forestry Paper. Food and Agriculture Organization of the United Nations (FAO), Rome
- FAO (2009) State of the world's forests. Food and Agriculture Organization of the United Nations (FAO), Rome
- FAO (2010) Global forest resources assessment 2010. Key findings. Food and Agriculture Organization of the United Nations (FAO), Rome
- FAO, ITTO (2005) Best practices for improving law compliance in the forest sector, vol 145, FAO Forestry Paper. Food and Agriculture Organization of the United Nations (FAO), Rome
- Fawzia F (2010) What's next after Copenhagen? A brief analysis on the outcomes of the Copenhagen climate conference and REDD-plus for ASEAN. ARKN-FCC Briefing Paper No. 5. Association of Southeast Asian Nations (ASEAN), Jakarta
- Fogarty EA (2007) Transnational governance. In: Bevir M (ed) Encyclopedia of governance. Sage, London
- Frost EL (2008) Asia's new regionalism. Lynne Rienner Publishers, Boulder
- G8 (2008) Chair's summary G8 environment ministers meeting. Kobe, 24–26 May 2008
- Galloway G, Katila P, Krug J (2010) The need for new strategies and approaches. In: Mery G, Katila P, Galloway G, Alfaro RI, Kanninen M, Lobovikov M, Varjo J (eds) Forests and society – responding to global drivers of change. International Union of Forest Research Organizations (IUFRO), Vienna, pp 441–486
- GFEP (2009) CPF Global Forest Expert Panel (GFEP). Expert panel on the international forest regime. Terms of reference. Collaborative Partnership on Forests (CPF), Rome
- Gibbs HK, Ruesch AS, Achard F, Clayton MK, Holmgren P, Ramankutty N, Foley JA (2010) Tropical forests were the primary sources of new agricultural land in the 1980s and 1990s. Proc Natl Acad Sci (PNAS) 107(38):16732–16737
- Glück P, Rayner J (2009) Governance and policies for adaptation. In: Seppälä R, Buck A, Katila P (eds) Adaptation of forests and people to climate change – a global assessment report, vol 22, IUFRO World Series. International Union of Forest Research Organizations (IUFRO), Vienna
- Glück P, Rayner J, Cashore B (2005) Changes in the governance of forest resources. In: Mery G, Alfaro R, Kanninen M, Lobovikov M (eds) Forests in the global balance – changing paradigms, vol 17, IUFRO World Series. International Union of Forest Research Organizations (IUFRO), Vienna, pp 39–74
- Glück P, Angelsen A, Appelstrand M, Assembe-Mvondo S, Auld G, Hogl K, Humphreys D, Wildburger C (2010) Core components of the international forest regime complex. In: Rayner J, Buck A, Katila P (eds) Embracing complexity: meeting the challenges of international forest governance. A global assessment report prepared by the Global Forest Expert Panel on the international forest regime. International Union of Forest Research Organizations (IUFRO), Vienna, pp 37–55
- Göhler D, Schwaab J (2009) Managing knowledge and regional policy advice: ASEAN forest clearing house mechanism. ASEAN high-level seminar on climate adaptation and mitigation. Association of Southeast Asian Nations (ASEAN), Jakarta, 23–25 Mar 2009
- Göhler D, Liss B-M, Thunberg J (2009a) Implementation of forest law enforcement and governance (FLEG) through national forest programs (nfp). ARKN Policy Brief. Association of Southeast Asian Nations (ASEAN), Jakarta
- Göhler D, McGill H, Obser A (2009b) Development interfaces: peer review and the development potential of regional institutions, policies and programs, vol 4, Exlibris series. ASEAN-German Regional Forest Programme (ReFOP), Jakarta

- Gullison RE (2003) Does forest certification conserve biodiversity? *Oryx* 37(2):153–165
- Gunningham N, Grabosky PN (eds) (1998) Smart regulation. Designing environmental policy. Oxford socio-legal studies. Oxford University Press, New York
- Haas PM (2002) UN conferences and constructivist governance of the environment. *Glob Gov* 8:73–91
- Harguindéguy J-B (2007) Policy learning. In: Bevir M (ed) Encyclopedia of governance. Sage, London
- Héritier A (2003) New modes of governance in Europe: increasing political capacity and policy effectiveness? In: Börzel TA, Cichowski R (eds) The state of the European Union, vol 6, Law, politics, and society. Oxford University Press, Oxford, pp 105–126
- Hinrichs A (2008) Training workshop on timber verification of legality systems, Brunei Darussalam. Briefing Paper No. 4. Association of Southeast Asian Nations (ASEAN), Jakarta, 21–23 July 2008
- Hinrichs A (2009) Briefing note on ASEAN criteria and indicators for legality of timber, vol 5, Briefing Paper. Association of Southeast Asian Nations (ASEAN), Jakarta
- Hogl K, Nordbeck R, Pregernig M (2008) GoFOR – new modes of governance for sustainable forestry in Europe. Project under the sixth EU framework programme for research and technology development. Publishable final activity report as of 13 Aug 2008. University of Natural Resources and Applied Life Science, Vienna
- Holzinger K, Knill C, Sommerer T (2008) Environmental policy convergence: the impact of international harmonization, transnational communication, and regulatory competition. *Int Organ* 62(3):553–587
- Howlett M (2002) Do networks matter? Linking policy network structure to policy outcomes: evidence from four Canadian policy sectors 1990–2000. *Can J Polit Sci* 35(2):235–267
- Howlett M, Joshi-Koop S (2011) Transnational learning, policy analytical capacity, and environmental policy convergence: survey results from Canada. *Glob Environ Chang* 21(1):85–92
- Howlett M, Ramesh M, Perl A (2009) Studying public policy. Policy cycles & policy subsystems. University Press, Oxford
- Humphreys D (ed) (2006) Logjam: deforestation and the crisis of global governance. Earthscan, London
- IFAD (2010) Rural poverty report 2011. International Fund for Agricultural Development (IFAD), Rome
- IPCC (2007) Climate change 2007: synthesis report. Intergovernmental Panel on Climate Change (IPCC), Geneva
- IUCN (2005) The beginning of the ENA-FLEG process in Russia: civil society insights. International Union for Conservation of Nature (IUCN), Moscow
- Kamelarczyk K, Strandby U (2009) The effect of IPPKs on household livelihoods in Malinau district, East Kalimantan. In: Moeliono M, Wollenberg E, Limberg G (eds) The decentralization of forest governance; politics, economics and the fight for control of forests in Indonesian Borneo. Earthscan, London
- Kaufmann D, Kraay A, Mastruzzi M (2010) The worldwide governance indicators: methodology and analytical issues. Global Economy and Development at Brookings Institutions, Washington, DC
- Kern K, Jörgens H, Jänicke M (2000) Die Diffusion umweltpolitischer Innovationen. Ein Beitrag zur Globalisierung von Umweltpolitik. Forschungsstelle für Umweltpolitik (FFU). Freie Universität Berlin, Berlin
- Koeng CH (2009) Policy brief on the impact of EU FLEGT action plan on ASEAN Member States intra- and international timber trade flow to EU. ARKN Policy Brief. Association of Southeast Asian Nations (ASEAN), Jakarta
- Koeng CH, Malessa U (2009) Policy brief on the impact of the Lacy Act (amended 2008) on ASEAN Member States intra- and international timber trade flow to the USA. ARKN Policy Brief. Association of Southeast Asian Nations (ASEAN), Jakarta
- Kooiman J (ed) (1993) Modern governance: new government – society interactions. Sage, London

- Larson AM (2005) Democratic decentralization in the forestry sector. In: Colfer CJP, Capistrano D (eds) *The politics of decentralization*. Earthscan, London, pp 32–62
- Lawson FH (2009) Comparative regionalism. Ashgate, Aldershot
- Lawson S, MacFaul L (2010) Illegal logging and related trade. Indicators of the global response. Chatham House, London
- Lejano R (2006) The design of environmental regimes: social construction, contextuality, and improvisation. *Int Environ Agreem* 6(2):187–207
- Levin K, McDermott C, Cashore B (2008) The climate regime as global forest governance: can reduced emissions from deforestation and forest degradation (REDD) initiatives pass a ‘dual effectiveness’ test? *Int For Rev* 10(3):538–549
- Levy MA, Young OR, Zürn M (1995) The study of international regimes. *Eur J Int Relat* 1 (3):267–330
- Limberg G (2009) Impact of small timber harvest permits on villages in the Malinau watershed. In: Moeliono M, Wollenberg E, Limberg G (eds) *The decentralization of forest governance; politics, economics and the fight for control of forests in Indonesian Borneo*. Earthscan, London
- Limberg G, Iwan R, Moeliono M, Sudana M, Wollenberg E (2007) Community-based forestry and management planning. In: Gunarso P, Setyawati T, Sunderland T, Shackleton C (eds) *Managing forest resources in a decentralized environment*. Center for International Forestry Research (CIFOR) & International Tropical Timber Organization (ITTO), Bogor
- Malinau District Government (2007) Baseline data on carbon stocks; identification of potential forest use for carbon sequestration in Malinau, East Kalimantan. District Agency of Environmental Impact Mitigation (BAPEDALDA), Malinau District Government, Malinau
- March JG, Olsen JP (1995) Democratic governance. Free Press, New York
- Martin RM (2004) Regional approaches: bridging national and global efforts. *Unasylva* 55(3):3–8
- Maxwell S, Stone D (2005) Global knowledge networks and international development. Bridges across boundaries. In: Stone D, Maxwell S (eds) *Global knowledge networks and international development: bridges across boundaries*. Routledge, London, pp 1–17
- Mayntz R (2004) Governance im Modernen Staat. In: Benz A (ed) *Governance – Regieren in komplexen Regelsystemen. Eine Einführung*. Verlag für Sozialwissenschaften, Wiesbaden, pp 63–76
- Mayntz R (2008) Von der Steuerungstheorie zu Global Governance. In: Schuppert GF, Zürn M (eds) *Governance in einer sich wandelnden Welt*. VS Verlag für Sozialwissenschaften, Wiesbaden, pp 43–60
- McCarthy JF (2004) Changing to grey: decentralization and the emergence of volatile socio-legal configurations in Central Kalimantan, Indonesia. *World Dev* 32(7):1199–1223
- McDermott CL, O’Carroll A, Wood P (2007) International forest policy – the instruments, agreements and processes that shape it. United Nations Forum on Forests (UNFF), New York
- McDermott C, Cashore B, Kanowski P (2010) Global environmental forest policies. An international comparison. Earthscan, London
- McDermott CL, Levin K, Cashore B (2011) Building the forest-climate bandwagon: REDD+ and the logic of problem amelioration. *Glob Environ Polit* 11(3):85–103
- Moeliono M, Limberg G (2009) The geography of Malinau. In: Moeliono M, Wollenberg E, Limberg G (eds) *The decentralization of forest governance; politics, economics and the fight for control of forests in Indonesian Borneo*. Earthscan, London
- Nanang M, Inoue M (2000) Local forest management in Indonesia: a contradiction between national forest policy and reality. *Int Rev Environ Strateg* 1(1):175–191
- Nelson BJ (1996) Public policy and administration: an overview. In: Goodin RE, Klingemann H-D (eds) *A new handbook of political science*. Oxford University Press, New York, pp 551–592
- Neo BS, Chen G (2007) Dynamic governance. Embedding culture, capabilities and change in Singapore. World Scientific Publishing, Singapore

- Nesadurai HES, Stone D (2000) Southeast Asian research institutes and regional cooperation. In: Stone D (ed) *Banking on knowledge. The genesis of the global development network*. Routledge, London/New York, pp 183–201
- Nomura K (2008) The politics of participation in forest management: a case from democratizing Indonesia. *J Environ Dev* 17(2):166–191
- Nye JS (2004) Soft power. The means to success in world politics. Public Affairs, New York
- Obser A, van Dijk K, Liss B-M, Wibowo PM, von Pfeil E (2005) Regionalization of the international forest policy dialogue: options for functions and structures (non-paper). Country led initiative (CLI) in support of the United Nations Forum on Forests (UNFF): scoping for a future agreement on forests. Federal Ministry of Consumer Protection, Food and Agriculture (BMVEL) and Federal Ministry for Economic Cooperation and Development (BMZ), Berlin, 16–18 Nov 2005
- OECD (2005) Regional integration in the Asia Pacific. Organisation for Economic Cooperation and Development (OECD), Paris
- Oikonomou V, Flamos A, Grafakos S (2010) Is blending of energy and climate policy instruments always desirable? *Energy Policy* 38(8):4186–4195
- Öjendal J (2001) Southeast Asia at a constant crossroads: an ambiguous ‘new region’. In: Schulz M, Söderbaum F, Öjendal J (eds) *Regionalization in a globalizing world. A comparative perspective on forms, actors and processes*. Zed Books, London/New York, pp 147–172
- Okereke C, Dooley K (2010) Principles of justice in proposals and policy approaches to avoided deforestation: towards a post-Kyoto climate agreement. *Glob Environ Chang* 20:82–95
- Ostrom E (1990) *Governing the commons. The evolution of institutions for collective action*. Cambridge University Press, Cambridge
- Ostrom E (2000) Collective action and the evolution of social norms. *J Econ Perspect* 14 (3):137–158
- Ostrom E (2007) Institutional rational choice. An assessment of the institutional analysis and development framework. In: Sabatier PA (ed) *Theories of the policy process*. Westview Press, Boulder
- Ostrom E (2009) A polycentric approach for coping with climate change. Policy research working paper 5095. Background paper to the 2010 World Development Report. World Bank, Washington, DC
- OTCA, CCAD, FAO/COFLAC (2009) Regionalization of the forest dialogue. The Puembo initiative. Lessons learnt and outlook. XIII World Forestry Congress, side event. Buenos Aires, 19 Oct 2009
- Palmer C (2009) Who, how and for what? Negotiations and outcomes from IPPK agreements between communities and brokers in Malinau. In: Moeliono M, Wollenberg E, Limberg G (eds) *Decentralization of forest governance; politics, economics and the fight for control of forests in Indonesian Borneo*. Earthscan, London
- Pedroni L, Dutschke M, Streck C, Porrura ME (2009) Creating incentives for avoiding further deforestation: the nested approach. *Clim Policy* 9:207–220
- Peluso NL (1992) Rich forests, poor people. Resource control and resistance in Java. University of California Press, Berkeley/Los Angeles
- Peluso NL (1993) Coercing conservation? The politics of state resource control. *Glob Environ Chang* 3(2):199–217
- Peluso NL, Harwell E (2001) Territory, custom, and the cultural politics of ethnic war in West Kalimantan, Indonesia. In: Peluso NL, Watts M (eds) *Violent environments*. Cornell University Press, Ithaca, pp 83–116
- Pescott MJ, Durst PB, Leslie RN (eds) (2010) *Forest law enforcement and governance: progress in Asia and the Pacific*. Asia-Pacific Forestry Commission (APFC), Bangkok
- Peskett L, Huberman D, Bowen-Jones E, Edwards G, Brown J (2008) Making REDD work for the poor. A Poverty Environment Partnership (PEP) report. https://cmsdata.iucn.org/downloads/redd_paper__web.pdf

- Pfaff A, Sills EO, Amacher GS, Coren MJ, Lawlor K, Streck C (2010) Policy impacts on deforestation. Lessons learned from past experiences to inform new initiatives. Nicholas Institute for Environmental Policy Solutions, Duke University, Durham
- Phelps J, Webb EL, Agrawal A (2010) Does REDD+ threaten to recentralize forest governance? *Science* 328:312–313
- Provan KG, Kenis P (2007) Modes of network governance: structure, management, and effectiveness. *J Public Admin Res Theory* 18:229–252
- Pütlz H, Rametsteiner E (2002) Grounding international modes of governance into national forest programmes. *Forest Pol Econ* 4(4):259–268
- Radaelli CM (2003) The open method of coordination: a new governance architecture for the European Union? Swedish Institute for European Policy Studies (SIEPS), Stockholm
- Rayner J, Howlett M (2004) National forest programmes as vehicles for next generation regulation. In: Humphreys D (ed) *Forests for the future. National forest programmes in Europe. Country and regional reports from COST Action E19. European Cooperation in the Field of Scientific and Technical Research (COST)*, Luxembourg
- Reinicke WH, Deng F, Witte JM, Benner T, Whitaker B, Gershman J (2000) Critical choices. The United Nations, networks, and the future of global governance. International Development Research Centre (IDRC), Ottawa
- Rhee S (2009) The cultural politics of collaboration to control and access forest resources in Malinau, East Kalimantan. In: Moeliono M, Wollenberg E, Limberg G (eds) *The decentralization of forest governance; politics, economics and the fight for control of forests in Indonesian Borneo*. Earthscan, London
- Rhodes RAW (1997) Understanding governance. Policy networks, governance, reflexivity and accountability. Open University Press, Buckingham/Philadelphia
- Ribot JC (2005) Choosing representation: institutions and powers for decentralized natural resource management. In: Colfer CJP, Capistrano D (eds) *The politics of decentralization. Forests, power and people*. Earthscan, London
- Ribot JC, Agrawal A, Larson AM (2006) Recentralizing while decentralizing: how national governments reappropriate forest resources. *World Dev* 34(11):1864
- Risse T (2007) Zur "Reisefähigkeit" des Governance-Konzeptes. SFB-Governance Working Paper Series Nr. 5. Deutsche Forschungsgemeinschaft (DFG) Sonderforschungsbereich (SFB) 700, Berlin
- Risse T, Lehmkuhl U (2006) Governance in areas of limited statehood – new modes of governance? SFB-Governance Working Paper Series No. 1. Deutsche Forschungsgemeinschaft (DFG) Research Center (SFB) 700, Berlin
- Rittberger V, Zangl B, Kruck A (2012) International organization, 2nd edn. Palgrave Macmillan, Basingstoke
- RLI (2008) Report of the Australian – Swiss region led initiative on regional input in support of the United Nations Forum on Forests. Region led initiative (RLI) co-hosted by the governments of Australia and Switzerland. Geneva, 28–30 Jan 2008
- Robledo C, Blaser J, Byrne S, Schmidt K (2008) Climate change and governance in the forest sector: an overview of the issues on forests and climate change with specific consideration of sector governance, tenure and access for local stakeholders. Intercooperation, Berne
- Rosenau JN (2006) The study of world politics, vol 2, Globalization and governance. Routledge, London
- Rosendal KG (2001) Overlapping international regimes. The case of the International Forum on Forests (IFF) between climate change and biodiversity. *Int Environ Agreem Polit Law Econ* 1 (4):447–468
- Sabatier PA (1988) An advocacy coalition framework of policy change and the role of policy-oriented learning therein. *Policy Sci* 21:129–168
- Sabatier PA, Jenkins-Smith HC (1999) The advocacy coalition framework. An assessment. In: Sabatier PA (ed.) *Theories of the policy process*. Westview Press, Boulder, pp. 117–166

- Salafsky N, Margoluis R (2004) Using adaptive management to improve ICDPs. In: McShane TO, Wells MP (eds) *Getting biodiversity projects to work*. Columbia University Press, New York, pp 372–394
- Salmi J, Samyn J-M (2008) National action plans to combat illegal logging and other forest crimes – progress and lessons learnt. Expert meeting on forest law enforcement and governance – progress and lessons learned. Bucharest, 13–15 Oct 2008
- Sanderson I (2002) Making sense of ‘what works’: evidence based policy making as instrumental rationality? *Public Policy Admin* 17(3):61–75
- Sandker M, Suwarno A, Campbell B (2007) Will forests remain in the face of oil palm expansion? Simulating change in Malinau, Indonesia. *Ecol Soc* 12(2):37
- Saunders J, Nussbaum R (2007) Forest governance and reduced emissions from deforestation and degradation (REDD). Chatham House, London
- Scharpf F (1993) Positive und negative Koordination in Verhandlungssystemen. In: Héritier A (ed) *Policy-Analyse. Kritik und Neuorientierung (PVS-Sonderheft 24/1993)*. Westdeutscher Verlag, Opladen, pp 57–83
- Schuppert GF (2008) Governance – auf der Suche nach Konturen eines “anerkannt uneindeutigen Begriffs”. In: Schuppert GF, Zürn M (eds) *Governance in einer sich wandelnden Welt*. VS Verlag für Sozialwissenschaften, Wiesbaden
- Scott JC (1998) Seeing like a state; how certain schemes to improve the human condition have failed. Yale University Press, New Haven
- Seymour F (2008) Forests, climate change, and human rights: managing risk and trade-offs. Human rights and climate change. Center for International Forestry Research (CIFOR), Bogor
- Sikor T, Stahl J, Enters T, Ribot JC, Singh N, Sunderlin WD, Wollenberg L (2010) REDD-plus, forest people’s rights and nested climate governance. *Glob Environ Chang* 20(3):423–425
- Singer B (2008) Putting the national back into forest-related policies: the international forests regime and national policies in Brazil and Indonesia. *Int For Rev* 10(3):523–537
- Siry J, Cubbage F, Ahmed M (2005) Sustainable forest management: global challenges and opportunities. *Forest Policy Econ* 7(4):551–561
- Soriaga R (2010) A review and analysis of the impacts of forest law enforcement and governance (FLEG) on sustainable livelihoods. ASEAN Regional Knowledge Network on FLEG Policy Brief. Association of Southeast Asian Nations (ASEAN), Jakarta
- Soriaga R, Cashore B (2009) Contribution and effectiveness of local governments in forest law enforcement and governance in ASEAN. ASEAN Regional Knowledge Network on FLEG Policy Paper. Association of Southeast Asian Nations (ASEAN), Jakarta
- Springate-Baginski O, Wollenberg E (eds) (2010) REDD, forest governance and rural livelihoods. The emerging agenda. Center for International Forestry Research (CIFOR), Bogor
- Stone D (2000) Non-governmental policy transfer: the strategies of independent policy institutes. *Gov Int J Policy Adm* 13(1):45–70
- Stone D (2005) Knowledge networks and global policy. In: Stone D, Maxwell S (eds) *Global knowledge networks and international development: bridges across boundaries*. Routledge, London, pp 89–105
- Streck C (2005) Governments and policy networks: chances, risks, and a missing strategy. In: Wijnen F, Zoeteman K, Pieters J (eds) *A handbook of globalization and environmental policy*. Edward Elgar, Cheltenham
- Streck C (2010) Reducing emissions from deforestation and forest degradation: national implementation of REDD schemes. *Clim Change* 100(3):389–394
- Sudana M (2009) Winners take all: understanding forest conflict in the era of decentralization in Indonesia. In: Moeliono M, Wollenberg E, Limberg G (eds) *The decentralization of forest governance; politics, economics and the fight for control of forests in Indonesian Borneo*. Earthscan, London
- Tacconi L (ed) (2007) Illegal logging: law enforcement, livelihoods and the timber trade. Earthscan, London

- TFD (2005) Practical actions to combat illegal logging. The Forests Dialogue, Yale University, New Haven
- Thang HC (2008a) Linkages between the ASEAN criteria and indicators for sustainable forest management of tropical forests and the Intergovernmental Panel on Forests (IPF)/ Intergovernmental Forum on Forests (IFF) proposals for action. Association of Southeast Asian Nations (ASEAN), Jakarta
- Thang HC (2008b) Forest law enforcement, governance and trade in Asia. An update. VERIFOR project/FAO international workshop on legality of traded timber: the development challenges. Rome, 24–26 Nov 2008
- Thang HC (2009) Managing regional expert pools through regional knowledge networks in ASEAN. In: Van Wart M, Göhler D, Fawzia F (eds) Seminar proceedings ASEAN high-level seminar. Climate change adaptation and mitigation: towards a cross-sectoral programme approach in ASEAN. Association of Southeast Asian Nations (ASEAN), Jakarta
- Thang HC (2010) The use of the ASEAN peer consultation framework (PCF) in forest law enforcement and governance (FLEG) assessment in the Philippines. Association of Southeast Asian Nations (ASEAN), Jakarta
- Theisohn T, Land T (2009) Connecting communities of practice. Practice reports capacity development knowledge architecture, issue 36. <http://www.capacity.org/en/layout/set/print/content/view/full/5533>. Accessed on 18 Dec 2009
- Thorburn C (2002) Regime change—prospects for community-based resource management in post-new order Indonesia. *Soc Nat Resour* 15:617–628
- UNFCCC (2008) Report of the conference of the parties on its thirteenth session, held in Bali, from 3 to 15 Dec 2007. Addendum part two: action taken by the conference of the parties at its thirteenth session. United Nations Framework Convention on Climate Change (UNFCCC), Bonn
- Visseren-Hamakers IJ, Glasbergen P (2007) Partnerships in forest governance. *Glob Environ Chang* 17:408–419
- Vogler J (2005) In defense of international environmental cooperation. In: Barry J, Eckersley R (eds) *The state and the global ecological crisis*. The MIT Press, Cambridge/London, pp 229–253
- Wollenberg E, Moeliono M, Limberg G (2009) Between state and society: decentralization in Indonesia. In: Moeliono M, Wollenberg E, Limberg G (eds) *The decentralization of forest governance; politics, economics and the fight for control of forests in Indonesian Borneo*. Earthscan, London
- World Bank (2006a) Strengthening forest law enforcement and governance. Addressing a systematic constraint to sustainable development. World Bank, Washington, DC
- World Bank (2006b) The Antalya workshop – from declaration to action. Implementing the St. Petersburg declaration on forest law enforcement and governance (FLEG) in Europe and North Asia (ENA). Antalya, 16–18 May 2006
- World Bank (2006c) Guidelines. Formulation and implementation of national action plans to combat illegal logging and other forest crime. Draft for discussion, revised June 2006. World Bank technical papers, sustainable development series. World Bank, Washington, DC
- World Bank (2009a) World development report 2010. Development and climate change. World Bank, Washington, DC
- World Bank (2009b) Roots for good forest outcomes: an analytical framework for governance reforms. World Bank, Washington, DC
- World Bank (2010) World development indicators 2010. World Bank, Washington, DC
- WRI (2009) The governance of forests initiative. Second meeting of the ASEAN Regional Knowledge Network on FLEG. Association of Southeast Asian Nations (ASEAN), Manila, 10–12 Feb 2009
- Yasmi Y, Broadhead J, Enters T, Genge C (2010) Forest policies, legislation and institutions in Asia and the Pacific. Trends and emerging needs for 2020. Asia-Pacific forestry sector outlook

- study II. Working Paper Series No. APFSOS II/WP/2010/34. Bangkok: Food and Agriculture Organization of the United Nations (FAO)
- Young OR (2002) The institutional dimensions of environmental change. Fit, interplay, and scale. MIT Press, Cambridge
- Young W (2010) Rio conventions redux: an argument for merging the trio into a single convention on environmental management. *J Sustain Dev* 4(1):134–154
- Young OR, Leslie AK, Schroeder H (eds) (2008) Institutions and environmental change. Principal findings, applications, and research frontiers. MIT Press, Cambridge
- Yusuf AA, Francisco H (2009) Climate change vulnerability mapping for Southeast Asia. Economy and Environment Program for Southeast Asia (EEPSEA), Singapore
- Zürn M (2008) Governance in einer sich wandelnden Welt – eine Zwischenbilanz. In: Schuppert GF, Zürn M (eds) Governance in einer sich wandelnden Welt. VS Verlag für Sozialwissenschaften, Wiesbaden, pp 553–580
- Zürn M, Koenig-Archibugi M (2006) Conclusion II: the modes and dynamics of global governance. In: Koenig-Archibugi M, Zürn M (eds) New modes of governance in the global system. Exploring publicness, delegation and inclusiveness. Palgrave Macmillan, New York, pp 236–254